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Affairs Of Wool And Sheep

The Forage Crop:

Seasonal conditions control the forage crop upon which the range stockman depends. Unlike the crop farmer, he cannot directly control the kind and variety of crop or feed that will appear each season. He can, however, do much more than is commonly practised to ensure maximum number and growth of the plants that are most valuable.

The sheep raiser is especially interested in preserving the wide variety of feed plants that do not belong to the grass family because sheep need and will utilize a much wider variety of vegetation than is sought or appreciated by cattle. Dr. Sampson's article in this issue presents some of the more important forage plants of wide distribution. It is important to be able to recognize these readily, to know their seasons of greatest value or safety, and so to regulate times of grazing certain areas to best utilize and conserve the class of plants whose presence makes a good range.

It has long been said that the farmer must know something of many sciences. The range stockman has too often been inclined to consider that he is a "cow-man" or a "sheepman" and that chemistry of soils, fertility, and nutrition, the botany of crops and plant growth, are only for the small crop raiser. The condition of many of our ranges strongly attests that the plant life is deteriorating.

The range man need not be a botanist or speak in Latin, but he must know plants and know how to graze them for best results in the present and in the future. Dr. Sampson knows both botany and grazing. He knows them from the standpoint of the scientist and as they must be known by a

man whose family is dependent upon the growth of animals that in turn depend upon the plant growth of the range. The Wool Grower is gratified to know that announcement will soon be made of the publishing of a book written by Dr. Sampson and dealing exhaustively with the use, conservation and improvement of the plants upon our Western ranges.

Regulating the Open Range:

A new solution is offered for an old problem. It is proposed in a measure framed by the Department of Agriculture, to provide for the organization of grazing districts when such is called for by a majority of the users of any public land area. When organized, permits will be issued for grazing and regulations enforced practically as is now done upon the National Forests. Charges for grazing will be necessary—the amount is not definitely suggested in the present form of the measure.

Provision will be made for the safe use of capital in developing water upon allotments and permits will have a life of ten years.

In most sections the grazing of Government land does not present the difficulties experienced in the past. There is no guaranty against over-stocking in the future and in the absence of such trouble, regulation can do much to improve forage, to allow water development, and to give stability to the business of users of the public domain. On the other hand there is to be considered the amount of the charges and rules to be observed in the issuing of permits.

Opinions and suggestions along this line are requested by the Wool Grower.

Our columns are open to a thorough discussion of this matter between now and next December, at which time the bill probably will be placed before Congress.

Orderly Marketing and Bankers:

The 1923 procedure in getting wool out of growers' hands scarcely accords with what is usually described as an orderly manner of marketing. With firm markets and strong demand, the desire to sell wools before or at the time of shearing does not seem likely to favor the taking of such wide profit margins as were secured last year by dealers who buy when there is not much system or order of marketing and resell in more deliberate fashion as demands must be satisfied from the mills which are the consumers or actual users.

The willingness and desire on the part of growers to make final sale of their clips at one time means the clearance in a few weeks of a crop which must go into consumption through a period of at least twelve months. The growers' haste to sell is, as one banker has said, not a matter of judgment, but one of necessity. Wool growers are large borrowers. Their bankers have been accustomed to receiving the value of the clips at a season when little money is forthcoming from other sources as the sheepman is the only one who has a harvest in spring time.

The banker receives only the repayment of his loan. If the grower's judgment suggests—and it usually does so—a more deliberate and conservative plan of selling, then he is the one who must set up a plan of that kind. With full appreciation of what bankers are doing and have done for live-stock raisers, it can fairly be said that few of them appear to understand the basis of wool values. They have many other things to consider and can not be expected to go much beyond their clients' opinions and demands.

The financing of wool for orderly marketing is the growers' problem. The widespread movement toward pooling is a safe beginning of improvement. In years of less active demand, pools will undoubtedly need to be

financed beyond shearing time in order to secure a price suggested by good judgment. As organizations they will be able to do this if their past records attest good business judgment and if the financial position of the members is such as to ensure safety to the loaning agency whose support is needed.

Capital and Operating Loans:

Capital loans can be obtained for long periods from joint stock land banks by those having investment in lands. The non-land owners will have access to the agricultural credit corporations for loans written for such periods as will separate due dates from shearing time. It is apparent and must be admitted that the wool grower who borrows upon his sheep is handicapped because he is usually borrowing upon the future product of his flocks. When he shall have reached the point where this year's sales go to furnish next year's operating expenses, he will have entered a new era.

This suggestion is now timely. Conservative growers have a prospect of reducing their debts. This may permit expansion of operations under the system of borrowing upon forthcoming wool and lambs. It would be a sound and orderly policy to accumulate funds for operation instead of using them as a basis for new obligations. This would allow marketing according to judgment rather than through necessity.

The Tariff Turmoil:

With President Harding's return to Washington and consultation with the Tariff Commission, the threatened tempest has vanished into thin air.

Applications had been made, under the provisions of the flexible paragraphs, for investigations and adjustments of duties upon seventeen commodities. Wool was not one of these. Some members of the commission urged that the wool rates should nevertheless be investigated to show their true relation to domestic and foreign costs of production. It was argued that there was widespread and serious complaint over wool rates and that it would be to the interests of the grower to have the facts set forth by world-

wide investigation of such impartial and thorough character as the commission would conduct. It seems strange that such feelings as were reported to exist should not have found expression in request for investigation along with the other seventeen varieties.

It was conceded that the President has power to order investigation with respect to any schedule even though no application therefor is submitted. It was decided to proceed with respect to the applications received and to initiate investigations only by and with consent of the President. There are no present grounds for supposing that anything will be undertaken with a view to changing wool rates, certainly not in the absence of any representations from those favoring such action. The Daily News-Record says that "it is understood that the President expressed the view that Congress in including the flexible tariff section in the new tariff act did so to provide a means of meeting emergencies due to changes of conditions which would affect rates and that the law makers did not intend that the entire act should be rewritten." This was the view held by the officers of the National Wool Growers Association in their support of the principle involved in the flexible paragraphs.

Wool Freight Rates:

The hearings now in progress are producing much valuable information and opinion for the Interstate Commerce Commission. Carriers' representatives claim that present rates are reasonable and that they should be allowed to put in lower wool rates from Pacific coast ports than from interior points in order to secure the tonnage that has been going to the ships. They also resist the suggestion that they should put in lower rates or "loading in transit" rules on westbound wool shipments or in any way facilitate delivery of business to the "unrestricted or unrestrained" steamship routes. It must be recognized that the railroads confront a real difficulty in having their rates controlled by a governmental commission while they are com-

peting with ship lines that can virtually offer any rate they wish.

Mr. H. W. Prickett, traffic counsel, is attending all hearings as representative of the National Wool Growers Association. President Hagenbarth testified at Salt Lake on May 1 and the secretary will submit further evidence at a later hearing. Senator Gooding and Dr. McClure were witnesses at Boise. Dr. Wilson opened at Salt Lake on behalf of the Wyoming Association. The various state associations are making effective presentations of their wishes and the reasons for expecting lower rates on wool. There is no prospect of a decision in time to apply to loading of 1923 wool. The case will undoubtedly be disposed of in advance of next year's shipments and in a way that will stand for many years.

SHEEP SHEARING OF GOVERNMENT SHEEP

The U. S. Sheep Experiment Station at Dubois, Idaho, announces May 29th as the day for the public shearing of the experimental flocks.

The station is about 100 miles north of Pocatello on the Salt Lake and Butte line. Provision will be made for conveying visitors to the station and in affording ample opportunity to become familiar with equipment and the results of the experiments carried on during the past six years.

The yearling ewes of the Rambouillet, Corriedale, and Columbia breeds chiefly will be penned and shorn, affording visitors an excellent opportunity to compare these types both in the wool and after shearing.

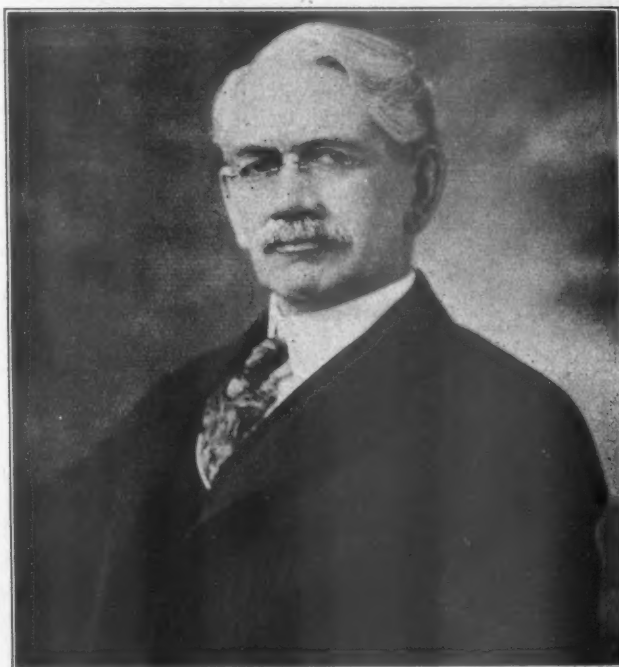
Sheepmen will also be interested in examining the station's facilities for providing water and winter feed. For those who can arrange to spend the day with the Government men, a very profitable and pleasant time is assured. Messrs. Spencer and Denecke have the range men's viewpoint and are prepared to give explanations and to receive suggestions calculated to make this Government enterprise render the maximum service to the range industry.

E. D. HULBERT In Memoriam

The nation, the live-stock industry, and the banking fraternity sustained a great loss in the death of E. D. Hulbert, president of the Illinois Merchants National Bank of Chicago, Ill.

Mr. Hulbert began life as a poor boy and at the time of his death had just achieved a great ambition of his life and was chosen as the president of the Illinois Merchants National Bank, which institution resulted from a merger of the Merchants Loan and

tion, found Mr. Hulbert to be the first man in Chicago unhesitatingly to pledge \$1,000,000, or more, toward a fund of \$25,000,000 for the purpose of rediscounting live-stock paper and making loans to live-stock banks and cattle loan companies. Mr. Hulbert had no acquaintance at that time with the live-stock business, except in a general way, and his bank was not known as a live-stock bank. However, when he came to learn in detail the troubles that were besetting the live-stock men and the relation which this industry bore to the commercial fabric of the



E. D. Hulbert

Trust Company, the Illinois Trust and Savings Bank, and the Corn Exchange National Bank. These three institutions combined, making perhaps the largest bank in Chicago and one of the largest banks in the country.

The live-stock men have special reason to be grateful to Mr. Hulbert and the bank which he represents by reason of his patriotic attitude in the trying days of 1920 and 1921. The writer, as president of the National Wool Growers Association, and Mr. M. K. Parsons, as vice-president of the American National Live Stock Associa-

country and the prosperity of the various sections where live-stock activities were located, he became very much interested and finally stated that if the other banks of the country would join in the movement that he would head a subscription list for \$1,000,000 toward a pool to furnish the necessary credit to stabilize live-stock conditions pending financial readjustment and betterment of markets, which he felt would come in the near future.

The other banks of Chicago joined in the movement and though but a small portion of the pledged credit

was ever used, the psychological effect produced was perhaps the beginning of a long series of efforts and discussions which finally resulted in the system of credits and credit banking recently established by Congressional action.

Mr. Hulbert was a friend and financial adviser of President Wilson during the war. He was a man of very unassuming manner, with great reserve force and well fitted to serve as the president of the great institution which

he has left behind him, and which will serve as a monument to his ability and character.

Men of Mr. Hulbert's caliber and patriotic impulse are not overly plentiful and it was with deep regret and feeling that the National Wool Growers Association and its respective members learned of the sad bereavement which came to his family and the great loss sustained by the institution of which he was the head.

F. J. Hagenbarth.

Watering Range Sheep Under Difficulties

Several methods of watering sheep on the range by artificial means have been worked out by the Bureau of Animal Industry, United States Department of Agriculture, at its Sheep Experiment Station near Dubois, Idaho. A vast amount of Western range land is inaccessible for sheep grazing because of the lack of open streams or other natural watering places for live stock. As a consequence a great deal of grazing land can not be used at all by sheepmen, or can only be utilized during limited periods of the year.

The government's tract of 28,160 acres of range land at the Dubois station offers excellent opportunities for studying the problem of artificially watering sheep. The annual rainfall there is but 13 to 15 inches, most of which comes during the late fall, winter, and early spring, and most of the land is too far from open streams to be used for grazing. Furthermore, the

water-table is very low, making well drilling expensive:

The government has drilled one deep well, 750 feet at a strategic point on this tract. A 10-horsepower outfit pumps 500 gallons of water per hour and stores it in large concrete underground reservoirs. Outlying water stations, each consisting of a 10,000-gallon, closed, concrete storage reservoir, have been constructed in a semi-circle about headquarters, at points three miles from the well, and at a distance of about three miles apart. Each of these reservoirs supplies a concrete trough 180 feet long and holding 1,600 gallons of water. These troughs permit the watering of a large band of sheep very quickly, without crowding.

The reservoirs are so located that water can be piped to them by gravity from headquarters. They can be filled also from the hillsides during

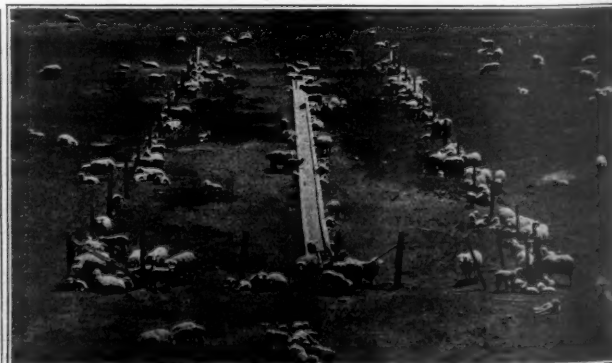
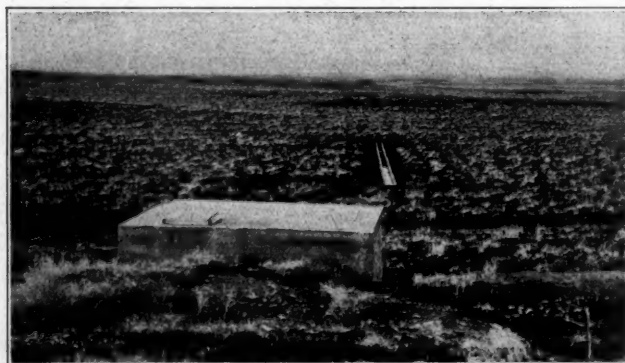
storms and when the snows are melting in the spring.

These permanent outlying water stations are used by sheep in full bands. Water is distributed elsewhere on the range by tanks and by movable troughs when the lambs are young and the bands are still small. In the spring or fall when snow is available, or during times of floods, the sheep are grazed upon outlying ranges, thus conserving the grass around the watering stations for use in dry weather.

On many ranges it is possible to conserve flood water by storage in open, natural reservoirs. This can be done either by storing water from streams fed from distant sources, or by storing water from melting snowdrifts. At the Dubois station such reservoirs are provided by throwing a rim of earth about a small natural basin having a solid rock bottom. A furrow is then plowed to snowdrifts at a higher level, near by and water is accumulated.

When snowdrifts are available, sheep eat the snow for water. Snowdrifts may be conserved by fencing the drift to keep the sheep from tramping it away, by covering the drift with straw to retard its melting, and by providing a trough at the base of the drift to catch the snow-water.

By a systematic use of such artificial methods of watering as can be provided, and a careful saving of all natural water that is available, much can be done towards making possible the utilization of Western grazing lands to the best advantage.



Southeast Water Station on range, three and one-half miles from source of supply. The concrete reservoir has a capacity of 10,000 gallons. If the reservoir is full, 2,000 ewes can be watered here for ten days when on dry fall feed.

Around the Range Country

TEXAS Stephensville

April days were only fair in this locality. Nearly all of the bands have lambled with a ninety per cent record. About one-third of the wool has been shorn and about the same amount sold at from 48½ to 50 cents. Shearers get 10 cents with board and 12 cents without board.

Dr. J. J. Mulloy.

* * *

Ozona

We had an unusual amount of cold weather and rain during March and the early part of April. However, the feed was good for lambing time. The yield of lambs is about 85 per cent. One bunch of lambs has been contracted for fall delivery at \$5.50.

T. D. Word.

WYOMING Hulett

Shearing has not commenced here, but about 20 per cent of the wool is sold. Prices named in connection with the contracting range around 48 cents. Twelve and a half cents with board is the shearing rate mentioned.

Spring has been warm and sunshiny.

G. R. Bush.

* * *

Worland

With the exception of one severe storm, April weather was fine. The wool report for this section up to May 4 is 25 per cent of the wool shorn, and 30 per cent sold, at around 45 cents. Shearers are being paid 15 cents with board. About 12 per cent of the bands have lambled out with a good yield—95 per cent is reported.

A. L. Alcott.

OREGON Westfall

Lambing is finished in this section and the crop is estimated at about 95 per cent. None of the sheep are shorn yet, but about nearly all of the wool

has been sold at from 42 to 43 cents. The rate for shearing is fixed at 12½ cents with board.

Rufino Arrien.

* * *

Richland

April weather ran true to form in variety. There is plenty of feed, however, and the lamb crop was a 100 per cent one. Nine and one-half and ten cents have been offered for fat lambs with delivery July 1st. Forty cents is also being offered for wool. No shearing has been done yet and none of the wool sold. Shearers will receive 10 cents with board.

John Sass.

COLORADO

Antonito

We have had a very dry and cold spring, but there is plenty of snow on the summer range. Lambing commenced this month and everything points to a good yield. We will start shearing about the middle of the month and will continue up to June. A few clips have been sold already at 42 cents. Herders are getting \$35 to \$40 per month.

R. Garcia.

* * *

Cheyenne Wells

The winter here was one of the mildest in years, only one light snow in November and a good rain in March. There is good grass though and the ewes are in fine condition, so the prospects for a good lamb crop are excellent. We will not shear until June and so far no wool has been sold. The growers are holding for 50 cents. The rate for shearing is named as ten cents with board.

Thos. S. Johnstone.

NEW MEXICO

Abiquiu

We had windy weather early in April with some rain and a few bright days which did not advance the grass very much. Lambing began about the tenth of May and it looks as if there will be a good crop. No one

has started to shear yet (May 2nd). About one-fourth of the wool was contracted, however, at 35 cents early in March. During April, 40 cents was refused by some of the growers.

M. Quintana.

* * *

Los Lunas

A little rain and heavy winds characterized April in this section. None of the sheep are shorn yet and no wool has been sold. Lambing has started. Thus far it has only been about a 75 per cent crop.

Fred Huning.

IDAHO Jerome

Although April brought some cold and windy weather, there were no heavy storms to cause injury to the sheep. All the sheep that wintered and lambled here were moved to the open range by April 20th. A few of the farm flocks have been shorn and some of the clips have sold at from 38½ to 41 cents. The lamb crop was a good one, about 120 per cent. Twelve cents with board and 15 cents without board are the shearing rates here.

J. A. Dodson.

* * *

Warren

We run two bands of sheep on the South Fork of the Salmon River, about ten miles below Warren. After the long cold winter, we are well pleased with the condition of our sheep. Spring is late, but not so much so as it was last year. Good warm rains and sunshine made the grass grow nicely and there was excellent feed for lambing which was finished early in May.

This is salmon fishing season on the South Fork and lots of fish are being caught. The country is most beautiful now. The high hills are green almost to the top.

Rimbrough & Coski.

CALIFORNIA

April was cool with showers. All of the sheep are shorn in this section

and about 90 per cent of the wool sold at prices ranging from 42 to 47½ cents. Shearers received 15 cents with board. All of the bands have been lambled out and 100 per cent of lambs marked. C. S. Nissen.

Esparto, Calif.

NEVADA

March was dry and cold and April to date (19th) has been warm and wet. A few clips of wool have been sold at 42 cents. Lambing has not started yet, but the feed is good and everything points to a good yield.

Jungo, Nev. Ben Yrulegui.

MONTANA

Dillon

Normal weather prevailed during April and no bad storms occurred. It is too early now (May 1st) to give an intelligent report on the wool and lamb situation here. No shearing has been done and no wool contracted. About ten per cent of the bands have been lambled out and it looks as if the crop would be about 90 per cent.

* * *

Bozeman

Lambing is finished here and about a 90 per cent crop was marked. Shearing has not commenced yet (May 4th) but 15 cents with board is the price that will probably be paid shearers. Some snow fell during April and the month as a whole was cool and cloudy.

A. E. Westlake.

Chalkbuttes

Our range is as good as it could be at this time of the year. Lambing is starting off in fine shape. The weather is fine and prospects are good for a big lamb crop. There has been no trading in sheep or wool here that I have heard of. Nearly all of the growers want 50 cents for their wool and it looks as though that will be the price.

J. G. Harkim.

ARIZONA

Putting together the various and at times conflicting reports of the range conditions that have prevailed in Arizona thus far this season, it would seem

that sheepmen have had an alternating series of hot and cold sensations passing up and down their spinal columns, with now and then patches of goose flesh thrown in for good measure. Since early in the winter that bogey of the Arizona stockmen, a drought seemed to be imminent. Although not materializing in its more sinister aspects, it was ever present at the threshold, licking its chops in ghoully glee, ready to strike at any time. On the lower levels where the favorite lambing grounds lie the lack of moisture was most pronounced. In the hill and mountainous country conditions were a little better—just a shade perhaps—though far below normal at their best. On a few occasions due to light rains it seemed that there would be feed in abundance, but it was only a false hope, a sort of a Custer's last stand so to speak, the droughty conditions continuing without any interruption worthy of note.

In the southern sections of the state, as might be expected under the circumstances, no one made a big lamb crop, and, what is more to the point, perhaps, no one failed completely. The average for those parts is probably about two-thirds of the normal crop, the lambs being of course not so good as in years when weather conditions are favorable and feed is plentiful.

Practically all of the Arizona wool crop is sold. Some sales were made in advance of shearing at private terms. Most clips, however, were sold at the shearing corrals. Very few shipments were made on consignment this year, the fewest in many years. The market being high most owners felt that it was a good time to sell. The prices received are said to vary from 44 cents to 55 cents per pound, with the bulk selling around 50 cents, and the later sales as usual bringing the higher prices.

Bert Haskett.

WASHINGTON

During the month of April the weather has been unusually good in eastern Washington. The days have been

warm with plenty of sunshine and we have been favored with plenty of rain. Range conditions have not been better for many years and lambing has been practically concluded with very favorable results—a good deal better than for the past year or two and perhaps better than average for this state.

The wool market has remained firm all during the month, even advancing to some extent. Forty-two cents represents the top price paid for anything in the state. By far the greater part of the wool of this state has gone at less than 40 cents, and it remains to be seen what the few unsold clips will bring. Much of this wool is rated by the buyers as having a shrinkage of 70 per cent. The world's wool markets apparently continue strong and there is evidently a shortage of fine wool. Recent wage increases and the general activity of industry would seem to indicate higher prices are in store for us. Offsetting this, however, is a decided tendency of the bankers and financial leaders to caution the public against over-riding the present wave of prosperity and to guard against speculation. Of course, whether the wool grower gets much or little for his wool, has no influence whatever on whether the dealer speculates with it or whether the manufacturer eventually has to pay exorbitant prices for it. Some of our bankers, however, seem obsessed with the idea that if the grower gets a lower price the manufacturer will pay a lower price and hence what are termed "too high" prices will be avoided and the dangers of inflation obviated.

Very few lambs have been contracted in this state, but those that have been have gone at 10 cents per pound. Just now we are considerably interested in the hearings to be held this month by the Interstate Commerce Commission with reference to the wool rate question. Undoubtedly the states are not all going to take the same view of this matter. However, I am much in hopes that we may get united on a program which will benefit all of us and injure none.

R. A. Balch.

Our Native Broad-Leaved Forage Plants

By ARTHUR W. SAMPSON

Some time ago the writer described and pictured in the columns of the National Wool Grower the grasses which are among the most important as food for sheep in the West.

"Those were interesting grass stories," remarked a seasoned, successful Nevada sheepman, referring to the Wool Grower grass articles. "For twenty-five years I have literally lived with those grasses which you pictured. They make pretty good sheep feed, but possibly I could show you something in the way of real sheep forage if you will spend a couple of days riding over my range." And then I was told somewhat confidentially, indeed, almost apologetically, that I wouldn't see any grass to speak of.

"No grass, yet lambs taken off the mountain in September weighing more than seventy pounds, may have an awfully queer sound, but that's a fact. It's just a good weed range, with some browse here and there, and I wouldn't trade it for all the wheatgrass pasture in Nevada."

Sheepmen everywhere in the West have long recognized that grasses alone contribute only a part; in fact, in many localities a minor portion, of the forage which sheep relish most and which produces the largest and most satisfactory gains.

It is the aim of the present article to point out and illustrate representative broad-leaved plants which are common on Western sheep ranges and which, because of their good food qualities for sheep and other classes of stock, should be recognized by stockmen. Often, when one knows which the good forage plants are, the grazing may be so carried out as to favor greatly the reproduction of the desirable plants to the detriment of the poisonous or otherwise objectionable kinds. Then, too, it is exceedingly interesting to know what the vegetation is that one sees when riding along or when following the band into the

nooks and rugged expanse of its scenic meanders.

Forage Preference of Different Classes of Stock

While it is true that the forage preference of all classes of live stock varies considerably in the different localities, it is well known that sheep and goats are somewhat less exacting in their forage selection than are cattle and horses.

Sheep utilize a much greater variety of forage plants than does any other class of domestic grazing animals, not even excepting the goat; and the goat, the reader will recall, is proclaimed to feed on about everything in its path, ranging from tin cans to flannel shirts! Sheep, however, show distinct preferences in their selection of food.



Fig. 1—Peavine (Lathyrus)

In a way sheep are inherently browsing animals, resembling the goat in this respect, but differing from the latter in that sheep consume a much larger number of plants of the so-called broad-leaved kinds, popularly spoken of as "weeds."

Succulent broad-leaved herbs are generally cropped more eagerly and closely by sheep than are many of the most palatable grasses, but good results are obtained on a combination range consisting of grasses and broad-leaved plants. Being especially fond of a large proportion of the browse vegetation, however, sheep are usually more content and consequently they may make bigger gains on a combination of palatable browse and broad-leaved herbs than on any other kind of forage. Cattle, on the other hand, thrive best where there is a small proportion of browse and succulent broad-leaved herbs and where grass distinctly predominates.

Class Grazing and Forage Production

The exclusive use of a range year after year by a single class of live stock, termed "class" grazing, invariably results in the thinning out or almost complete destruction of one type of forage and a conspicuous increase of another type. Moreover, class grazing often results in a dense growth of useless weeds and poisonous plants. This peculiarity is accounted for by the fact that a single class of stock consumes closely only one general type or kind of feed. A single class of stock will sample the so-called knick-knacks, but they will not consume all types of forage closely. Only those plants which are highly palatable will be fully utilized each year, provided the range is not clearly overstocked.

The problem of maintaining a good balance between the different kinds of forage plants is not a small one for the reason, among others, that no invariable regularity in the "menu" is mani-

festated by the different classes of live stock. When grazing animals are no longer able to satisfy their hunger by devouring the leafage of the once abundant choice plants, those of second or often even those of third choice are consumed more or less closely. It has been the observation of practically all experienced sheep and cattle growers that where a single class of stock has been grazed for many years in succession, the plants which are most palatable to that class of stock have been thinned out appreciably. A mixed cover of grasses and broad-leaved plants, when cropped exclusively by sheep, almost invariably becomes conspicuous grass land; when utilized entirely by cattle for many years the grass cover usually becomes depleted and the broad-leaved plants, often both herbs and browse, distinctly predominate. In other words, a long-used cattle range, so far as the vegetation itself is concerned, is usually ideal for the grazing of sheep, whereas a long-used sheep range, with its luxuriant grass cover and few weeds, is best suited for cattle grazing.

Where the grass and weed forage is well-balanced, and hence is suited to the grazing both of cattle and sheep, the most economical use of the feed will be procured where both classes of stock are handled. Under such "common use" care should be taken to graze the right proportion of each class of stock; otherwise the one class will destroy or damage a considerable amount of feed well suited to the other class. This practice of common use is probably best applied on privately-owned pastures, where there is a mutual interest in both classes of stock.

Forage Value of Broad-Leaved Plants

There are hundreds of different kinds of broad-leaved or non-grass-like plants which contribute in varying abundance to the native forage crop. Broadly considered, however, the combined value of broad-leaved plants, in spite of their palatability, is not equal in forage value to that of the grasses. This is due chiefly to the following facts: (1) broad-leaved forage plants

seldom occur in dense stands over extensive grazing ranges as do the grasses; (2) the herbage of broad-leaved plants does not as a rule cure nearly as well on the ground as does that of grasses, and hence the yield is relatively small after the plant has reached maturity; and (3), most broad-leaved herbs are more or less readily crowded out and replaced by the more aggressive perennial grasses and certain other plants.

For the reasons stated, the yield of palatable broad-leaved herbs is rather fluctuating season for season, and the forage supply therefore is much less reliable than where a good perennial grass cover is found.

Important Families of Broad-leaved Plants

Considering the number, abundance and palatability of the plants belonging to the pea family, those of the carrot family, and those of the sunflower or thistle family, it appears that these families contribute more to the forage crop throughout the West than do the members of any other family of broad-leaved plants.

Plants of the Pea Family

This large family, probably embracing more than 10,000 species, is the most important of those above named. The family may be recognized either by the characteristic butterfly-shaped corolla, as seen in the sweet pea, or by the pod, like that of the garden pea. The flowers are usually arranged along a raceme or cluster, as in the pea, but they sometimes occur in a head, as in clover. Economically the legumes, as the plants belonging to the pea family are called, in forage value are second only to the grasses. Such representatives as alfalfa and the clovers are well known to stockmen for the excellent forage which they produce. In addition to these, the family embraces some of the most dreaded stock-poisoning plants known. Among these the locos are conspicuous.

Leguminous plants are comparatively rich in protein or muscle-forming

substance, and hence are especially valuable to young stock.

The Peavines

The peavines occur throughout the foothills and high mountains of the West. It is rather surprising that there are no fewer than about 110 different kinds of peavines. A large number of these occur on the Western grazing grounds (figure 1). As forage, they have as a class a fairly high reputation both as cattle and sheep feed. Some of the mountain forms are seldom cropped much until in the autumn, when heavy frosts have occurred. About the time that growth ceases in the fall cattle graze the herbage rather closely, but they seldom crop the vines. In some localities sheep devour the leaves at any time during the growing season, but generally sheep also graze these plants closest in the cool of the autumn.

The Vetches

The vetches, which number some 130 different species, resemble closely the peavines in general appearance. As a group, however, the vetches are considerably more palatable than the peavines. American or purple vetch, pictured in figure 2, is one of the most valuable forage plants of this important group.

The Lupines

The lupines are among the most conspicuous herbaceous representatives of the pea family. The word "lupine" comes from the ancient Latin name—"Lupus"—meaning "wolf," possibly in reference to the poisonous properties which these plants possess at certain times in the season (see cover).

Many of the lupines are cropped with much relish by stock even after the seeds are formed. And that is the main objection to them, for many species are known to be poisonous, especially to sheep, after the pods are developed. If grazed before the pods have formed, there is no danger whatever of poisoning; but great care must be taken not to permit sheep to pasture on heavy stands of lupine after the seed is developed.



Fig. 2—American Vetch (*Vicia*)

Among other important plants of the pea family which are much relished by stock are the native clovers, burr clover, and the trefoils.

Plants of the Carrot Family

The representatives of the carrot family, which includes more than 1,900 different kinds or species of plants, are all herbs. They are strong scented plants containing aromatic oils. They are readily recognized by the arrangement of their flowers in umbels, (radiating from a common point like the stays of an umbrella), which typifies the family as a whole.

Several members of the carrot family are important as food for man as well as foraging animals. The garden carrot, cultivated parsnip, and celery are among the most important vegetable representatives. Several, such as sweet cicely and the true wild carrot, are among the choicest of forage plants. A few, such as water hemlock, are deadly poison and in some

localities are the cause of heavy livestock losses annually.

The Wild Carrot

There are only about five species of the true wild carrot in the United States, all of these being native of the far Western states.

The fine-leaved wild carrot, illustrated in figure 3, is the most valuable forage species of the group. The stems, which grow from 1 to 3 feet high, carry an abundance of finely dissected leaves and purple or yellow clusters of flowers. This plant is common throughout the foothill grazing grounds of the far Western states, and occurs from the Canadian border to the mountains of Mexico.

Few plants are eaten with greater relish by sheep and goats than wild carrot. When green and tender, the plant is usually eaten down to the ground; indeed, on heavily used range the foliage is sometimes cropped so closely as to kill out the plants. Cattle are also fond of the leafage. Were it not for the strong, thick, oily root there would probably be no wild carrot on many a pasture where now it

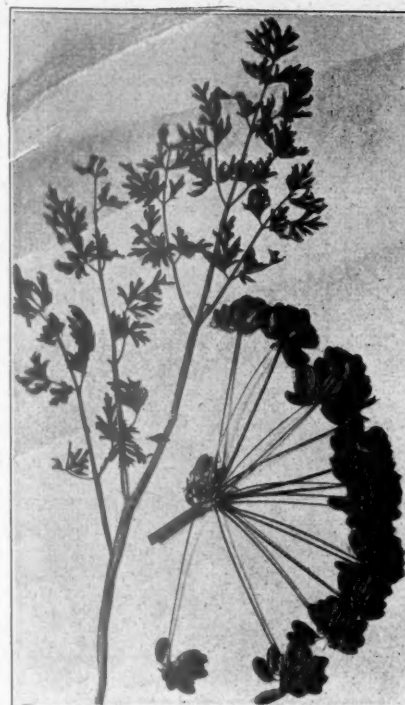


Fig. 3—Wild Carrot (*Leptotaenia*) is eaten ravenously by sheep.

forms annually an important constituent of the forage crop.

Sweet Cicely

There are 15 different kinds of sweet cicelies, ten of which occur in the Rocky Mountains and along the Pacific slope.

Most sweet cicelies (figure 4) are palatable to all classes of foraging animals. Sheep and goats are especially fond of the foliage and flowers, and cattle consume the tender leafage more closely than that of most plants of this general type. Unfortunately sweet cicelies seldom occur in great abundance in any one place, but this is due in part to their rather high palatability and the closeness with which they are cropped. The stand everywhere may be increased appreciably by better pasture management, particularly by permitting a portion of the lands now and then to be grazed so late in the season as to develop a good, strong seed crop.

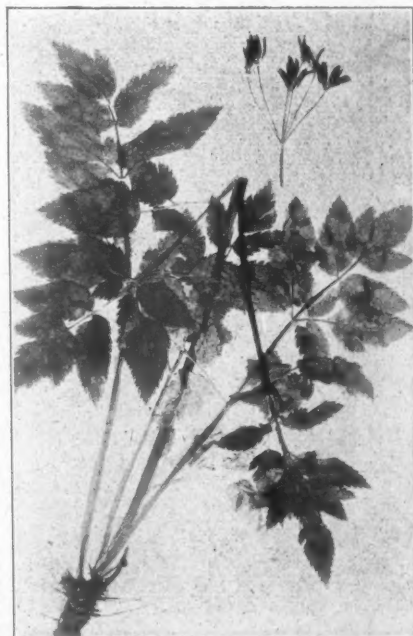


Fig. 4—Sweet Cicely (*Washingtonia*), a good sheep feed.

HITTING VERSUS MISSING

By ALLYN H. TEDMON

No. II.

Did it ever occur to you, as a sheepman or a herder, how few coyotes you have actually killed, as compared to the number you have shot at? It would be hard, if not impossible, to say what percentage of shots fired at wolves were misses. We will all agree I guess that there are many, many more misses than hits.

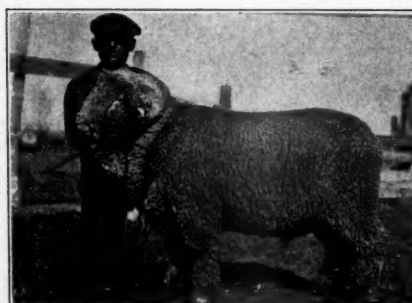
Now there are many good reasons and excuses for making a miss. Some of them are good and from our standpoint, valid, but at the same time there are a lot of them that are not good and could be prevented.

Shooting coyotes is not an easy thing to do. There is a knack about it that every man does not have and many can not learn. However, with plenty of careful practice, the average man can learn to hit a big per cent of those fired at. One of the first things that must be kept in mind is the actual size of the little wolves. As you all know, they are not much else but fur and legs. In reality with the fur off, the average coyote does not offer much more to shoot at than a good big jackrabbit. For this reason a vast amount of poor shooting is done at unreasonable ranges. I believe I am safe in saying that the majority of coyotes hit are shot at around a hundred yards. Fewer yet are hit at a hundred and fifty and only a very small per cent are ever hit at ranges over two hundred. I say this in the face of the fact that many a coyote is hit at around a hundred yards and the shooter is to this day telling of the long shot he made, believing it to be nearer two hundred. The trouble is we do not know. Just place a few of your long shots and see for yourself how the distance will dwindle. It will almost make you sore at times, it has me, to find the long shot dwindle down to a bare hundred and fifty yards. The farthest I ever shot a coyote and paced the distance was around two hundred yards. I did get one one time, much farther, possibly near three hundred, but it was a luck

shot, for the animal was too far off to see it well.

Another reason why many are missed is because the shooter does not really get right down to business and line up right. He does what we might call flock shooting. Up goes the rifle and bang, bang, bang it goes, and it is so much fun to see the fleeing animals dodge and duck at every shot, and misses are so common, that the shooter is satisfied. However, such shooting never kills coyotes. It may scare them and run them out of the near vicinity of the ranch or the herd, but it does not prevent those same coyotes sneaking back and picking up some lambs later.

And we might mention as another



A stud ram in preparation for the 1923 sale. Owned by Gillett Sheep Co., Castleford, Idaho.

good reason the fact that many rifles are not sighted right, and in many cases such shooting is beyond their ability. It may be that the sights are really off, so the rifle does not shoot to the point aimed at. And more often they are set so that they shoot either too high or too low. Here is the place to start. Be sure your rifle is right. Be sure you know what that rifle will do and know what you can expect of it. Find out how high the trajectory of the bullet is at a hundred yards, at two hundred and, if a low-powered rifle, at, fifty yards. Thus you will know how high you must hold. For instance, take the ordinary .30-30. At one hundred yards the bullet rises 1.28 inches at the midway or fifty-yard point. When shoot-

ing at two hundred yards the bullet rises about six inches and at 300 yards it rises over fifteen inches. A black powder .32-20 bullet rises over two inches when fired over a hundred yard range and a .32-40 black powder rises at the midway point remember, over 12 inches when fired at a point 200 yards away, that is, when the sights are set for these distances. And just for something to think about, the .32-40 black powder bullet is 32 inches above the line of sight when sighted for 300 yards.

From the foregoing you will see why it is next to impossible to make hits at long range, especially with the average run of rifles. As I stated once before in the Wool Grower, no rifle shoots flat, and the flatter the bullet does shoot to the line of sight, the chance for hits at any range is just that much greater. Just for example, take a .30-30 rifle sighted for 200 yards. At 100 yards the bullet from it will be six inches above the line of sight. Now should you be shooting at a coyote 100 yards off you can see that it would be a very easy thing to miss it, especially should the shooter hold an inch or so too high. Should the same rifle be sighted for 300 yards, as once in a while one is, the bullet would be around 15 inches high at 150 yards, making a miss at a coyote at 100 or 150 yards almost certain. Shooting at such distances, that is over 200 yards, we might say, with the average run of rifles you will see is mighty close to being mere guess work.

In summing the matter up, we will be made to realize that a coyote at 200 yards, is not a very large thing to hit. To do such shooting, consistent shooting I mean, not luck shots, it takes a rifle of gilt-edge accuracy, high velocity and the flattest trajectory possible. It is a known fact among us all that the majority of the Biological Survey hunters use rifles of this type. They have learned from experience that the best rifles, most modern in every respect, are none too good for their use. A rifle is no slap-bang instrument. It is an arm of precision and for it to produce results it must be treated as such.

Lamb Feeding Experiments at Washington Station

Results of the Second Year's Tests

The Washington Experiment Station completed the second successful year of feeding lambs at the Irrigation Branch Station at Prosser, Washington, on March 10th when the station was host to 600 persons who came to hear and see the results of experiments with 700 lambs and 10 lots of steers.

The morning was spent examining the different lots, all of which were labeled, to show the weight at the beginning and the close of the trials, the daily gains, daily rations and the feed consumed per 100-pounds gain, as well as the necessary selling price to break even should the lambs be sold at the feed lots.

At 11:30 Superintendent R. P. Bean called the stock buyers together representing Fry and Company of Seattle, Carsten and Company of Tacoma, the Yakima Meat Company of Yakima, and Barton and Company of Seattle. The bidding was a little slow and the lambs were finally knocked down to Carsten and Company for \$13.20 and weighed up at the Experiment Station. The sale included the 700 experiment lambs and about 200 other lambs which were not on test.

Lunch was served on the ground at twelve o'clock. The market finish or fatness of the lambs was appraised prior to Field Day by Mr. L. Lawson, representing Fry and Company and Mr. Archie Pryor of Yakima, one of the larger lamb producers of the valley.

After lunch Director Johnson of the Experiment Station called the visitors together and the discussion of the results of the experimental work was led by H. Hackedorn, in charge of the Animal Husbandry Division of the Experiment Station.

Different Cuttings of Alfalfa

The variation in the different cuttings of alfalfa hay was not so marked this year as last. The difference in the finish of the three lots was not nearly so great. As seen by the summary



Experimental lambs on the way to market from the Washington Irrigation Branch Station, Prosser, Washington.

tables, the feed requirements per unit of gain were reasonably close. The outstanding feature of these three lots compared to those fed similarly in the 1922 tests was that the lambs receiving the second cutting hay did not seem to relish their hay as much as those receiving first or third cutting. They were given all of the hay that they would eat, yet they did not eat as much as did the lambs on the first and third cuttings. The average of two

years' work gives the cuttings a rating on the basis of 50 lambs per lot each year 100 per cent for the first cutting, 95 per cent for the third cutting and 93 per cent for the second cutting. The first year's results showed the rating to be first cutting 100 per cent, third cutting 85 per cent and second cutting 63 per cent. The second year's results showed much less difference.

Sweet Clover Hay Versus Alfalfa

The excellent result with sweet

TABLE I. — SUMMARY OF TESTS OF DIFFERENT CUTTINGS ALFALFA AND COMPARISONS OF SWEET CLOVER AND ALFALFA.

RATION	1st cutting corn % lb.	2nd cutting corn % lb.	3rd cutting corn % lb.	1st cutting sweet clover corn % lb.	1st cutting alfalfa % uroc
Lot number	I	II	III	XII	I
Average initial wt.	68.9	69.8	69.8	70.2	68.9
Average final wt.	86.6	86.8	87.6	87.5	86.6
Average total gain	17.7	17.0	17.8	17.3	17.7
Average daily gain ....	.295	.283	.297	.288	.295
Average daily ration:					
Corn, shelled .....	.75	.75	.75	.75	.75
Molasses, beet					
Hay:					
Offered ..	2.75	2.34	2.71	3.55	2.75
Refused ..	.28	.30	.34	1.02	.28
Silage, corn					
Feed per cwt. gain:					
Corn ..	254.2	264.7	252.0	260.7	254.2
Molasses ..					
Hay:					
Offered ..	931.2	824.0	910.6	1234.0	931.2
Refused ..	95.4	105.3	113.0	356.0	95.4
Feed cost cwt. gain	\$10.69	\$10.19	\$10.52	\$12.78	\$10.69
Selling price per cwt. to pay for feed	\$10.94	\$10.84	\$10.90	\$11.35	\$10.94
Appraised value per cent	90.	93.	95.	90.	90.
Margin per cwt. to pay for feed, \$	-.06	-.16	-.10	+.35	-.06

Feed prices per ton: All hay, \$13.00; corn silage, \$6.50; shelled corn, No. 2, yellow, \$36.50; beet molasses, \$25.00; cottonseed meal, \$61.00.

clover last year was not apparent this year. The hay was not quite so good because of some foreign grasses which came up in the field. However, it would be classed as good hay. In 1922, work with two lots of lambs showed that if first cutting alfalfa hay is valued as 100, sweet clover has a value of 123. This year with first cutting alfalfa valued as 100, first cutting sweet clover rated only 74. The difference is due to the larger waste of hay by the sweet clover lot. On the basis of feed consumed the hay ran about equal but in the sweet clover lot there was greater waste.

Different Quantities of Molasses

The work with two lots of lambs in 1922 on the question of the feeding value of beet molasses showed 135.29 pounds beet molasses to have the replacing value of 115.8 pounds corn and 65.6 pounds alfalfa hay. This year the problem of the best quantity of beet molasses to feed to lambs was studied. Three lots of 50 lambs each were fed rations of $\frac{3}{4}$ -pound corn.

TABLE II—DATA FOR LOTS FED DIFFERENT AMOUNTS OF MOLASSES

RATION	Molasses $\frac{1}{2}$ lb. corn $\frac{1}{2}$ lb. hay	Molasses 1 lb. corn $\frac{1}{2}$ lb. hay	Molasses $1\frac{1}{2}$ lb. corn $\frac{1}{2}$ lb. hay
Lot No.	VI	V	IV
Av. initial wt.	71.2	72.8	72.3
Av. final wt.	88.0	92.6	89.7
Av. total gain	16.8	19.8	17.4
Av. daily gain	.280	.330	.290
Av. daily ration:			
Corn, shelled	.75	.75	.50
Molasses, beet	.50	1.00	1.09
Hay:			
Offered	2.11	2.24	2.16
Refused	.25	.37	.52
Silage, corn			
Feed, per cwt. gain:			
Corn	267.5	227.3	213.6
Molasses	178.4	279.3	375.9
Hay:			
Offered	751.8	679.5	743.5
Refused	90.2	113.2	179.2
Silage			
Feed cost cwt. gain	\$12.00	\$12.06	\$13.43
Selling price per cwt. to pay for feed	\$11.19	\$11.23	\$11.47
Appraised value per cent	97.	100.	98.
Margin per cwt. to pay for feed	+19	+23	+47

TABLE III—DATA FOR LOTS FED DIFFERENT AMOUNTS OF CORN.

RATION	Corn $\frac{1}{4}$ lb. hay silage $1\frac{1}{2}$ lb.	Corn $\frac{1}{2}$ lb. hay silage $1\frac{1}{2}$ lb.	Corn $\frac{3}{4}$ lb. hay silage $1\frac{1}{2}$ lb.	Corn 1 lb. hay silage $1\frac{1}{2}$ lb.	Corn $1\frac{1}{2}$ lb. hay silage $1\frac{1}{2}$ lb.
Lot number	X	XI	VII	VIII	IX
Average initial wt.	66.3	71.6	67.7	69.9	72.1
Average final wt.	79.1	85.6	85.9	91.0	95.5
Average total gain	12.8	14.0	18.2	21.1	23.4
Average daily gain	.213	.233	.303	.352	.390
Average daily ration:					
Corn, shelled	.25	.50	.75	1.00	1.50
Molasses					
Hay:					
Offered	2.45	2.16	2.20	2.15	1.72
Refused	.45	.38	.38	.44	.45
Silage, corn	1.42	1.42	1.42	1.42	1.40
Feed per cwt. gain:					
Corn	115.4	214.7	247.8	285.3	351.0
Molasses					
Hay:					
Offered	1148.6	927.6	727.7	610.5	440.9
Refused	210.3	161.0	126.0	124.0	105.3
Silage	666.9	611.5	469.2	403.8	327.2
Feed cost cwt. gain	\$11.74	\$11.93	\$10.78	\$10.49	\$10.34
Selling price per cwt. to pay for feed	\$11.12	\$11.15	\$10.97	\$10.88	\$10.84
Appraised value per cent	90.	93.	95.	100.	100.
Margin per cwt. to pay for feed	+.12	+.15	-.03	-.12	-.16

Feed prices per ton: All hay, \$13.00; corn silage, \$6.50; shelled corn, No. 2, yellow, \$36.50; beet molasses, \$25.00; cottonseed meal, \$61.00.

One of these lots received $\frac{1}{2}$ -pound beet molasses, another 1 pound and the third $1\frac{1}{4}$ pounds. First cutting alfalfa hay was fed to all three lots. The gains made by the lambs were .280, .330 and .290 pounds per head in the order of the increasing molasses feed. There was not much difference in finish of the lambs. The ratings of the various lots according to finish were 97 for $\frac{1}{2}$ -lb. molasses, 100 for 1 pound molasses and 98 for the $1\frac{1}{2}$ pounds molasses. The lambs on the heavy ration of beet molasses went off feed several times and did not gain as well as those fed just one pound of molasses. Lambs fed molasses costing \$25 per ton made the most expensive gains.

Varying Amounts of Grain

The question of the proportion of grain to roughage in a ration was studied again this year, with hay and silage substituted for hay alone. This series of lots was fed rations from $\frac{1}{4}$ to $1\frac{1}{2}$ pounds of grain in order to arrive at a standard to show the feeder what can be expected from the standpoint of fatness when different amounts of grain are fed. Thus the rancher knowing the feed that he has on hand, can gauge what will be necessary for him to buy in the form of

grain to bring his lambs to the desired condition. Some years it would be cheaper to feed large amounts of grain, while other years when the price of hay is low and the price of grain is high, he had better take a lower finish and utilize cheap feed. The outstanding point aside from the amount of feed required per 100 pounds' gain in this series of tests, was that the low grain rations, $\frac{1}{4}$ and $\frac{1}{2}$ pounds, were very close together, and they were not finished sufficiently to sell well. Three-fourths' pounds of grain is considered about the minimum that one can use to fatten the general run of range lambs, and the question of feeding more will depend largely on the price of grain and hay and the price for the finished lambs. Another point in comparing this year's results with last year's was that in the low grain lots—those receiving $\frac{1}{4}$ and $\frac{1}{2}$ pounds' grain—the finish was higher when silage was introduced than last year when hay and corn alone were fed.

Different Amounts of Silage

Another outstanding feature of the experimental work at this station this year with lamb feeding as well as cattle feeding, was the fact that even in

intensive hay growing sections where alfalfa is pronounced a main crop, silage has an important place, primarily because it can be produced cheaply enough to compete successfully with alfalfa hay, even when hay is figured as low as \$5 or \$6 per ton. Three lots of lambs were fed this year with silage varying from 1 pound to 1½ pounds and the higher silage lots were the cheaper from the standpoint of the product and were practically equal from the standpoint of finish. The lot receiving a 1½-pound corn and 1½-pound silage ration in addition to all the hay that they would eat made the best gains and were the fattest of all the ones in the experiments, but they cost a little more per 100 pounds' gain.

TABLE IV—DATA FOR DIFFERENT AMOUNTS OF SILAGE

RATION	Corn 1½ lb. hay silage 1 lb.	Corn 1½ lb. hay silage 1½ lb.	Corn 1½ lb. hay silage 2 lbs.
Lot No.	XIV	IX	XIII
Av. initial wt...	68.7	72.1	69.0
Av. final wt.	94.1	95.5	95.3
Av. total gain	25.4	23.4	26.3
Av. daily gain....	.423	.390	.439
Av. daily ration:			
Corn, shelled ..	1.50	1.50	1.50
Molasses, beet			
Hay:			
Offered	2.16	1.72	1.54
Refused .....	.63	.45	.51
Silage, corn	1.00	1.40	1.70
Feed, per cwt. gain:			
Corn	354.1	351.0	342.5
Molasses			
Hay:			
Offered	510.5	440.9	350.4
Refused	148.1	105.3	117.0
Silage	236.0	327.2	387.0
Feed cost cwt. gain	\$10.55	\$10.34	\$9.79
Selling price per cwt. to pay for feed	\$10.88	\$10.84	\$10.67
Appraised value per cent	96.	100.	98.
Margin per cwt. to pay for feed	—12	—16	—33

The summary tables give in a concise form the results of the work this year. A detailed report of the work this year and last year will be available some time during August and any one interested may obtain a copy from the Director of the Washington Experiment Station at Pullman.

THE CURSE OF BRANDING PAINT

By PERCIVAL MOTT

The curse of branding paint becomes a severe problem to the Eastern mill man. This is particularly true when he buys the so-called "Territory Wools." For the most part, sheep in the territory regions are branded with oil paint laid on in generous quantities. This paint dries hard and breaks up into tufts of wool, each tuft being tipped with a hard nubble of paint. The handling the fleece receives at shearing time, and afterwards, tends to scatter the painted brand, and by the time the fleece is laid out on the wool sorter's table, the paint often covers an area several times greater than the original brand mark. The wool sorters simply pluck out all this paint-tufted wool, throw it to a pile by itself until later, and proceed to sort the rest of the fleeces. After a whole bag, or bale, has been sorted, this pile of "paint," as it is called in the wool room, is gone over with hand shears and each tuft of paint is clipped off.

This paint clipping is a slow job that costs money and certainly damages the wool fibre. Not infrequently it takes longer to clip the "paint" accumulated from one bag of wool than to sort all the wool from that bag. It is non-productive labor that the mill men would like to see reduced, and many buyers give serious consideration to how much paint different lots of wool have, naturally giving preference to the lot having the least paint, if other points are practically equal. The men who do the branding should remember this, and realize that the paint they so quickly smear on today must be clipped slowly off tomorrow.

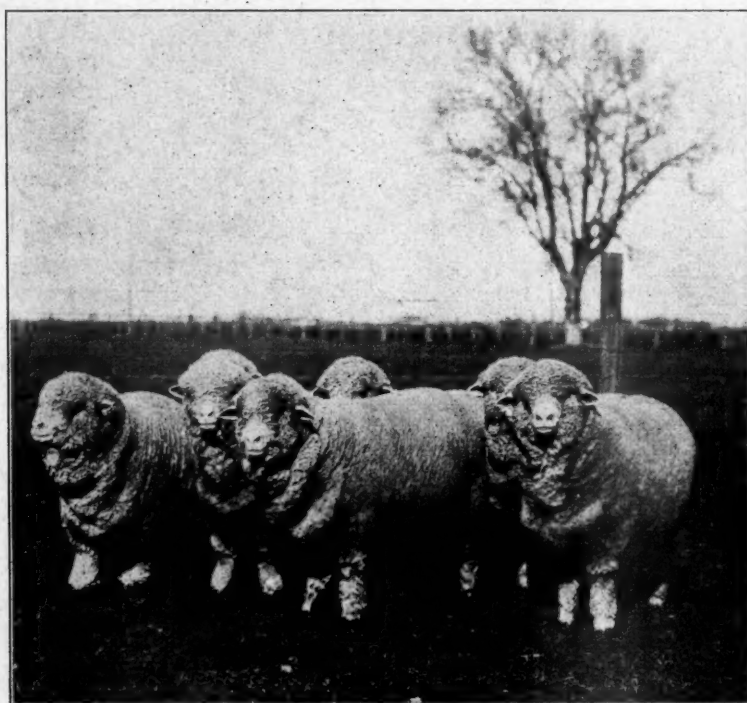
These are some of the reasons why attempts have been made to invent a branding mixture that will not only last through the weathering conditions of the sheep ranges, but will wash from the wool when it is scoured at the mill. Many ways have been tried, but so far all lack real success.

Some of these branding mixtures are worse than paint itself. In hot seasons certain patent branding paints

run down into the very base of the wool fibres and leave a permanent stain that even the strong soap used in scouring wool cannot eradicate.

Other marking mixtures seem to consist of lamp black in some form of carrier-oil or chemical. In these types, the lamp black can be washed away but a yellow stain is left behind that lowers the quality of the wool, and consequently the yarn spun from it. A wool that runs a high percentage of yellow and "burnt locks" cannot be worked up into a snow-white "top," or spun into a yarn of the best color. Yarn from such wool inclines towards a dull, dirty white. In competition with other yarns, this is a serious factor that may mean the loss of a customer.

A substance that can give to the manufacturer even more trouble than paint, is tar. Fleeces that came from parts of the British Isles used to have brand marks stamped with tar. The heat of the scouring and drying that the wool is subjected to at the mill, softens the tar to a stiff, gummy consistency that clings to the wool fibres and becomes imbedded in the wires of the card "clothing." Also, in the following process of combing the wool, such a lump of tar and wool cannot draw through the pins of the comb "circles," and the result is that the pins are broken out of the "circles" of the combing machines. In order to comb the wool, the rows of fine pins must not have serious gaps so that an accident means stopping for repairs. The repair of "circles" is an expensive cost in the operation of a worsted mill that cannot be neglected. Over and above the cost of repairs there is always a big loss due to the stoppage of production while "circles" are being replaced by perfect ones. As the production of a worsted mill is dependent on the output of the combing machines, this is a process that every superintendent watches closely, and he seeks to keep his "combs" in as nearly continuous oper-



Some of the 55 ewes recently shorn under official test for entry in the Advanced Registry of the California Rambouillet Breeders Association. Owned by Bullard Bros.

ation as possible, in order to prevent holding up work in the drawing and spinning departments.

To sum up, we have for branding purposes the following: tar, the worst of them all; patent mixtures that often give the manufacturers great trouble because of a lasting stain; and the most common branding material,—just oil paint. Territory wools average the most paint and Australian wools have very little or none. Territory flocks have range conditions that undoubtedly require good branding, while in Australia, fencing is depended on more to guard from loss or mixing, and many flocks there are not paint-branded at all.

If our Territory wools must be branded, at least let us spread the slogan of greater thrift in the use of paint and better judgment as to where to place it. No more safety is secured by smearing paint over half the sheep's side or in placing it just where the finest and most valuable wool grows. The ideal brand should

be small and simple, and the paint used sparingly. It is important to keep the area covered by the brand as small as possible because of the saving in labor when the wool is sorted. As the wool growing near the neck and shoulders is the most valuable part of the fleece, it is not a good practice to place your brands in that region.

If the Territory wools are to win the favor due them from mill men in the East, each rancher must see what he can do to lessen the curse of branding paint.

ALL AROUND OREGON

April was a good month in the Oregon range country. Much needed rains fell over central and northeastern Oregon and greatly helped the spring range. In Klamath County the range is rather dry as the weather was unusually warm and drying in February and March and caused a poor start of grass in many places and lessened the flow of range springs.

An unusually high percentage of lambs is reported from all the range districts. In central Oregon lambing in sheds resulted in high percentages. The range lambing has been more recently in progress under favorable conditions and reports are encouraging.

Wool selling has been in considerable volume during the month, some of the largest clips, including those of the Baldwin Sheep company, having been sold. Other large clips in the Heppner country were contracted. Prices up to 45 cents are authoritatively reported. Newspaper reports recently indicate a half of the state's clip contracted, and if the sales of the first week of May are included, this is probably true.

Oregon growers are somewhat interested in a plan being developed in the state of Washington by the Yakima Commercial Club, Washington State College and the Wool Growers Service Club. Financed by the latter organization, the idea is to place upwards of 50,000 feeder lambs from the small farms in the valley for feeding for market next fall and winter. The plan is to place these lambs in small bands of 50 to 2,000, then to turn them over to the farmers for feeders, charging them interest on the money advanced for the period covering the operation. The lambs will then be assembled and shipped in trainloads to Chicago. A marketing commission and also a purchasing commissoin are contemplated.

The first flock signed up under the wool improvement project organized by H. A. Lindgren of the Oregon Extension Service staff, that of R. B. Oliver of Douglas County, was sheared in April. This band is of more or less mixed blood, shearing less than the fine wools of the eastern Oregon country. In a band of 729 head, 516 sheared over 5 pounds, averaging 6.23 pounds, while 213 sheared less than 5 pounds, averaging 4.16 pounds. The plan is to breed these ewes to bucks shearing much more satisfactorily with the idea in view of building up the average fleece in the next few sea-

sons. The eastern and central Oregon bands entered in this project will be sheared in May.

Some of the largest operators are paying herders \$65.

There is some feeling of optimism developing in the farming districts of Oregon. Good wool prices have much to do with this feeling. In addition the wheat has come through in very good shape. Prospects are good in the dairy districts, where prices have been good and all in all the outlook is a little more encouraging. Then also many of those who have been hanging on by courage alone, as it were, have dropped off and are either making a new start or others are operating their business on a new basis of valuation.

An interesting bill which slipped through the Oregon legislature without attracting much attention provides for the organization of grazing associations. By the provisions of the bill as passed by the legislature and signed by Governor Pierce, a group of twenty or more taxpayers may file the county claim notice of an election upon which a vote shall be taken for or against requiring grazing licenses for sheep, cattle, horses and other live stock in certain districts. Providing the district election carries, a board is to be established to apportion the grazing facilities of the district, naming first rights to local owners. Before the provisions of this act may become effective it must be ratified at a general election in the county.

There is some question in the minds of Oregon sheepmen regarding the constitutionality of this measure in its connection with public lands. It will, of course, be applicable to deeded areas and may offer some opportunities for range improvement which is badly needed in some districts and will also serve to prevent too extensive use of the range by itinerant flocks to the detriment of those owned by local residents. F. L. Ballard.

Be sure and keep in mind the National Ram Sale dates, August 27-28-29. The usual high standard of quality will be maintained in the offerings.

THE NEED OF THE WOOL INDUSTRY

An Address by Vice-President Ellenwood Delivered Before the Pacific Coast Clothiers Association and San Francisco Business Men.

Business men in the city meet quite often and tell each other their troubles but it is seldom we, as farmers, have an opportunity to meet with you and when we do we are unable to express ourselves as we should.

Let us for a moment revert to the simple life. On whom do we all depend entirely for existence? The answer is—Mother Earth. She furnishes us with all the natural resources. The only other thing necessary for our living is labor. Everything springs from the earth and labor properly applied and assisted by nature changes its form to suit every whim we have in higher civilization concerning the food we eat, the clothes we wear or the luxuries we enjoy.

In applying labor, the first thing necessary is capital. Labor must be fed and clothed while it is waiting for the crop to grow. The man that borrows the capital, employs the labor and assumes all the risk concerning the elements, is known as the producer. The next man in line is the man that loaned the money, or the financier.

The next thing after the crop is produced, is transportation, with our great army of people employed in that line; after that, distribution of the product to the ultimate consumer. All this is called "business" and the success of all business depends upon the success of that original producer. If he is successful, all other lines have a chance to be the same but if he is not, then other lines of business are certain to go backward.

All lines of business are dependent upon the success of the producer and labor. If labor is fully employed at good wages, money is spent for luxuries as well as for the bare necessities of life. If the original producer has a margin left after defraying all the expenses, every other line of business will get a portion of that producer's profit, but if there is no profit for the original producer, all other lines of business will be deprived of their

share of the producer's profit. Their only source of revenue then is their portion that the well-paid laboring man gives them. For the past three years the wool producer and most farmers have been losing money and the only thing that saved most all other lines of business was the fact that labor was well employed at good wages.

Last September, on my way East, just out of Chicago, I happened to see an editorial in one of the great dailies, that interested me. It told what a prosperous year 1922 would be. It spoke of the great corn crop in the Mississippi Valley, the great wheat and apple crops in various sections, the great potato crops in the Northwest and pointed out how many millions of dollars would be coming to the American farmer and that he would in turn buy automobiles, musical instruments and spend his money generally on luxuries of life, thus making business for every line. The fellow that wrote this editorial never stopped to think that in every instance the farmer would have nothing to spend on these luxuries and not even for the necessities of life, because every dollar he received for wheat, corn, potatoes and wool represented an outlay in 1922 of from \$1.15 to \$1.25 for cost of production.

Such editorials as this make beautiful reading if one does not stop to thoroughly analyze them. And so it is with many of the political speeches that are made in the Halls of Congress; so it is with the circular letter that was sent out last year by the president of the National Retail Clothiers Association, Mr. Anselm Frankel.

I want to say first concerning this letter that I do not blame the retail clothiers so much for doing as they did at the request of their national president, but I do wish to say to them that they have been terribly misled and misinformed.

When I went to New York last

September to take Mr. Frankel to task for publishing such a letter, and not one letter but several, which were simply a juggling of figures and a misrepresentation of facts, and asked him for a conference to go over and argue the points, he simply threw up his hands and admitted that he did not know anything about the question. He did, however, produce Mr. Wm. Goldman of Cohen, Goldman & Co., clothing manufacturers in New York City, who had been furnishing him all this material about the wool tariff and against the wool growers. A few of the things that were stated by Mr. Frankel and suggested by Mr. Goldman to him for circular letters, are in substance as follows:

"Your attention is directed to the fact that when the Payne-Aldrich Bill was adopted, during President Taft's administration, it levied on wool a duty of 11 cents in the grease. At that time President Taft protested against this rate as being too high, yet the proposed rate of 33 cents per pound on scoured content in the pending bill would mean about 80 per cent increase over the Payne-Aldrich rate."

In another letter it was stated that President Taft declared this schedule to be indefensible. This he did, but why indefensible? Mr. Goldman and some others would have you and the public generally believe, that it was indefensible on account of the wool duty. I will explain to you why it was indefensible, if I may, in just a few words.

The law stated that the duty should be 11 cents per grease pound, 22 cents on washed wool and 33 cents on scoured wool and as a compensatory duty to the manufacturers it should be 44 cents per pound of cloth composed wholly or in part of wool. In addition to this the manufacturer had his protective tariff of about 50 per cent ad valorem duty. The protection afforded the wool grower was supposed to have been 33 cents per scoured pound of wool, but owing to the fact that importers of wool were very shrewd business men they saw by selecting light shrinking wools in a for-

eign country and then skirting these wools, that is leaving all tags, belly wool and skirts, which were the heaviest shrinking part of every fleece in the foreign country, and by paying the duty on these wools of 11 cents on the grease pound after they had them scoured, the duty cost of each scoured pound of imported wool would vary from 15 to 20 cents per pound, the average being about 18 cents per scoured pound; thus, the wool growers' protection, instead of being 33 cents per scoured pound at that time, was on the average about 18 cents.

After these scoured wools were manufactured into cloth the manufacturer had a compensatory duty on that cloth of 44 cents per pound under the false assumption that it had required four pounds of grease wool to make one pound of cloth or that the duty on his scoured wool had amounted to 33 cents per pound, so that the compensatory duty on cloth was much more than it should have been.

The next and most important thing was the fact that cloth containing only a small percentage of wool say, 30 or 40 per cent wool, had this same protection of 44 cents per pound, which was not right. We as wool growers protested against this law as being indefensible, as it gave to the wool grower only slightly more than one-half the protection it assumed to do and it placed a protection on manufactured goods much greater than it assumed to do. This statement of Mr. Goldman's about 80 per cent increase over that law is arrived at by juggling the figures in this way because the old law in protecting the wool grower was only about 50 per cent efficient with an average duty on scoured wool of around 18 cents. He then assumes that the new proposed law of 33 cents per scoured pound will be 100 per cent efficient and by making that unjust comparison he states that this new law would be an increase of 80 per cent.

We never did and never will have any tariff law that will be 100 per cent efficient, but by collecting wool duties on the scoured content basis we

as wool growers figure that it will be nearer 100 per cent efficient than any other system of collecting wool duties.

This is the only system that can be fair to the wool grower. In this new law for the benefit of the consumer, instead of levying the duty on cloth composed wholly or in part of wool, the new law reads, "Levied on the wool contained therein." In case a piece of wool is 50 per cent cotton it will only take 50 per cent of the compensatory wool duty which means a reduction from the old Payne-Aldrich law on the consumer's end and it is the only fair thing to do. We as wool growers have tried to lend our assistance in having a tariff law framed on the wool schedule that would be fair to the wool growers, the manufacturers, and all parties interested in the production of woolen goods, and yet at the same time be absolutely fair to the consuming public. I believe that nothing will stand unless it is reasonably fair to everyone.

Mr. Goldman also made the statement, and I believe Mr. Frankel did in some of his letters, that this proposed tariff law of 33 cents would mean an increase of about \$5 on a suit of clothes and as much as \$7.50 on a winter overcoat to the ultimate consumer. I wish to correct this statement and show absolutely what that increase does amount to.

In a lightweight summer suit, 3-9/32 pounds of scoured wool, is required. Figuring the duty at 31 cents per pound, as it is in the present law, and not 33 cents as Mr. Goldman figured it would be, and allowing each and every one 9 per cent interest on his money invested in this wool duty for the average time that it is owned by him in passing from raw wool to the retailer, the total increase due to the tariff when it reaches the retailer would be \$1.0712 cents on a suit. Figuring the same way, it would be around \$1.50 on a heavy winter suit and \$2 to \$2.50 on a heavy winter overcoat.

To further prove this statement, I wish to exhibit here some Australian wool that has been landed within the

(Continued on page 42)

Sheep Statistics Interpreted and Revised

By L. G. CONNOR, Washington, D. C.

A large amount of discussion with reference to the domestic sheep industry, and the changes in its status during the last three decades, has occurred during the past two years. Extreme statements have been made concerning apparent declines in numbers of sheep, both by friends of, and by those seemingly indifferent to, sheep and wool. It therefore may be of interest to examine sheep statistics during recent years, and also to scrutinize other factors bearing on the subject, the better to understand the statistics. Only by such scrutiny can the real status of American sheep husbandry be properly estimated. A candid study suggests that the statistics alone may be quite misleading, and that, although there has been a decline in the total number of sheep, the major part of that decline has been in wethers with relatively little change in number of ewes or of lambs. Such a study also would suggest that the sheep industry in the United States has been fundamentally sound, and, despite a number of adverse factors, such as widespread home-steading, unfavorable seasons, recently paralyzed wool and mutton markets, high marketing costs, and a heavy carry-over of indebtedness from the high-cost period of the war years, sheep and wool are recovering from the post-war depressions, in fact have already made considerable progress toward financial stability and flock rehabilitation.

Table I presents census figures for sheep and lambs since 1890. Such figures as those in column one would seem to support widespread statements concerning declines in domestic sheep production since 1900. A glance at other columns would suggest that the decline occurred largely after 1910. But in view of the difference in dates at which the censuses were taken, and the relation of these dates to the lambing season, it would appear wise first to examine the statistics from this angle before drawing conclusions.

Thus, by June 1, practically all the lambing is over and "tailed up," i. e., count of tails, finished in order that range sheepmen may know where they stand with regard to number of lambs docked per 100 ewes. In the farming states lambing also is over by that time. On the other hand, on April 15, the date for which the census was taken in 1910, millions of lambs have yet to be dropped, and the "mark-up" is incomplete for other millions just newly born but not yet docked. On January 1, the date for which the 1920 census was taken, the bulk of the lambs to be marketed have already been disposed of. Those on hand are almost exclusively females held for breeding purposes, or for sale as breeders, and wether lambs on feed. The bulk of sheep and lambs marketed each year are shipped after May 1 and before January 1. Thus, at the 11 principal markets more than two-thirds of the sheep and lambs are received during this period. Lambs disposed of between January 1 and June 1 always consist chiefly of wether lambs, females being present in but limited numbers under normal conditions except in very early receipts of spring lambs from south of the Potomac and Ohio Rivers. Such receipts are not large until after June 1 in most years. In view of the foregoing, it is immediately evident that the census figures for 1910 and for 1920 are not fairly comparable with 1900 and earlier figures nor with each other. Adjustments must be made to offset the differences in date of taking them.

from both causes probably would not exceed 3 per cent of the total, since the more dangerous early lambing was finished, and movement of ewes to market for slaughter is never more than an incident at that time of year in normal seasons. Probably no fewer than 31,000,000 ewes were on hand June 1, 1910. This number compares very favorably indeed with that at previous censuses. If lambs on hand were in the same ratio as in 1890 and 1900, and there is no reason to suppose otherwise, the number of lambs



A sample of the pen of range rams to be sold by the Gillett Sheep Co. at the 1923 National Ram Sale, August 27-29.

in the country would total practically 21,000,000 on June 1, 1910. A considerable decrease will have to be made in number of wethers, since the great bulk of sheep marketed between April 15 and June 1 consists of fed lambs carried over from the previous season, and also fed and some "grass" yearlings and wethers. Probably the reported total as of April 15 would have to be reduced between 10 and 15 per cent to allow for sales under this head, leaving approximately 6,500,000 head of rams and wethers on hand June 1,

TABLE I—SHEEP IN THE UNITED STATES—1890-1920 CENSUS

	All Sheep	Rams & Wethers	Ewes	Lambs
1920 (January 1)	35,033,516	2,305,389	23,518,631	8,925,915
1910 (April 15)	52,447,861	7,710,249	31,933,797	12,803,815
1900 (June 1)	61,503,713	7,995,315	31,857,652	21,650,746
1890 (June 1)	61,605,811	8,018,275	31,919,298	21,668,238

First examining the 1910 figures, it is evident that adjustments must be made in all four columns. A minute percentage of the ewes on hand on April 15 were sold by June 1, and an equally small number died. A decrease

1910, and a total of all sheep of 58,500,000. This, too, compares very favorably with the earlier censuses. The chief decline is in wethers, and such decline is in keeping with the known trend toward ewe and lamb flocks, and a discontinuance of wethers after 1900. Rising production costs, declining range areas, and increasing need for winter feeding to offset restriction in the area of open range, had been steadily forcing this change toward a replacement of wethers by ewes and a disposal of lambs soon after weaning instead of holding them for one or more fleeces, then selling from grass in the summer and fall. Returns from the flock, and rapidity of capital turnover were both enhanced by this change. It is surprising, in view of the rapid spread of homesteading in the Far West, that the number of wethers had not been still more reduced by 1910.

Coming now to 1920, adjustments must be made on an entirely different basis. The lambs on hand were the residue after heavy summer and fall marketings were finished, and a majority were ewe lambs held for breeding purposes. They are in no sense comparable with those reported as of 1910 and previously. Probably more than two-thirds of them were females retained for flock maintenance or for disposal by the breeders to sheepmen who habitually replace old ewes by purchase. These females would have been reported as ewes had the census been taken as of June 1, 1920. The number of ewes therefore must be largely increased to give a proper June 1 figure, but allowance must also be made for slaughter and death between January 1 and June 1. Such loss probably averaged about four per cent for this period. This would be only normal, since considerable movement out of central and northern ranges resulted from the drouth of 1919, which affected all the ranges east of central Washington and Oregon, and most of central Nevada and Colorado. This lighter stocking during the following winter in large part curtailed the effect of drouth on the flocks. Sales

from the ewe bands for slaughtering purposes were small, since the previous season had been quite profitable, and winter and spring sales had been already discounted by forced liquidation owing to the drouth. In the Southwest every effort was made to increase the flocks, and to a large extent the same was true elsewhere. It is highly probable, therefore, that the number of these ewes on hand June 1,

TABLE II—SHEEP IN THE UNITED STATES—1890-1920

	All Sheep	Rams & Wethers	Ewes	Lambs
1920 (adjusted)	49,150,000	1,600,000	28,300,000	19,250,000
1910 (adjusted)	58,500,000	6,500,000	31,000,000	21,000,000
1900	61,503,713	7,995,315	31,857,652	21,650,746
1890	61,605,811	8,018,275	31,919,298	21,668,238

1920, was not less than 22,800,000. Ewe lambs as of January 1, closed into breeding bands by June 1 following probably numbered not less than 5,500,000 head.

The number of wethers must also be reduced to allow for death and slaughter. The death loss would be light, since these wethers, averaging more than 18 months old (erroneous inclusion of wether lambs with the wethers being neglected) would withstand winter hardships very well. Sales would, however, be fairly heavy, and the number probably would have to be reduced by close to 30 per cent to get a fairly accurate June 1 figure, i. e., approximately 1,600,000 of these animals would have been on hand the following June. Not less than one-half of this number were rams. In other words, on June 1, 1920, the number of rams differed but slightly from previous censuses—in the neighborhood of 900,000 head, for 1890, 1900 and 1910, as compared with 809,000 in 1920, but the number of wethers would seem to have been curtailed by 87½ per cent between 1910 and 1920. As a matter of fact the number of wethers on hand probably was curtailed 80 per cent. This is a striking decrease, but is in keeping with the known rapid disappearance of wether flocks except in parts of the Southwest, particularly in Texas and New Mexico, and to a more limited extent in the Upper Ohio Valley, after 1910.

In other words the number of ewes on hand June 1, 1920, was approximate-

ly 28,300,000, of rams and wethers 1,600,000. Spring lambs, if enumerated then would undoubtedly have been in approximately the same ratio as at previous censuses, and would have numbered about 19,250,000 head, making a total for all sheep of 49,150,000 on June 1, 1920. Table II which is Table I reconstructed on the foregoing basis to give approximately comparable figures for June 1, is presented below:

It appears that the American sheep industry has not been decimated so seriously as often has been represented. A future article will deal with the statistics of mutton, lamb and wool production.

CALIFORNIA LEGISLATURE REQUESTS NATIONAL FABRIC LAW

The following joint resolution was adopted by the forty-fifth regular session of the legislature of California and transmitted to the president and to the Congress of the United States:

Whereas, There has been introduced in the senate of the United States a bill known as the "Capper-French Truth-in-Fabric Bill," Senate Bill No. 799; and

Whereas, A similar bill has been introduced in the house of representatives, H. R. "Bill No. 64"; and

Whereas, The purpose of said bill is to require that manufacturers of woolen goods attach to the manufactured fabrics labels indicating the percentage of virgin wool and the percentage of re-worked wool contained in said manufactured fabric; and

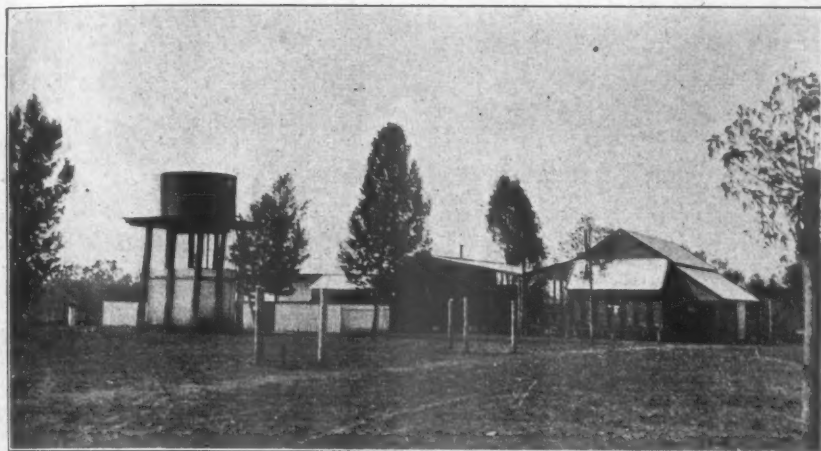
Whereas, The sheep and wool industry is a large industry in the state of California, and continually growing in importance; now, therefore, be it

Resolved, By the assembly and the senate, jointly, that the legislature of the state of California at its forty-fifth regular session does respectfully urge upon the senate of the United States and the house of representatives, the adoption of said "Capper-French Truth-in-Fabric Bill" and the imperative need for the immediate enactment of the same; and, be it further

Resolved, That a copy of this joint resolution be sent, by the chief clerk of the assembly, to the president of the United States and to each member of the Congress of the United States, from the state of California.

Sheep Affairs in Australia and New Zealand

By A. C. MILLS



Homestead of a "Back Country" Sheep Station in Queensland

Melbourne, Australia, March 15, 1923.

The continued absence of general rains over the principal grazing areas of Australia is causing stockowners more than a little anxiety. Although the south still carries a moderate amount of feed, it is getting very dry and surface water is becoming scarce in many districts. A considerable portion of the center of the Continent is practically drought stricken. Parts of north New South Wales and south Queensland received some relief from storms during the month, but the bulk of the country is bare. Those who are holding stock are handfeeding where possible. Where not possible to get fodder, owing to distance from the railroad or lack of teams to lift it, the sheep are being left to take their chance. What that means may be imagined, especially in the case of lambing ewes. The north is in fair to good condition on the whole. The summer monsoons have been disappointing, but there is yet time for enough rain to fall before winter sets in.

As is usually the case, the state of the country is vividly reflected in the livestock markets. The yardings for the past two months or more have been abnormally heavy, particularly in Sydney and Melbourne, and it has been interesting to watch how steadily

the proportion of prime fats has dwindled. The great bulk of the offerings at the last few sales has been decidedly on the plain side. This fact, combined with the recent considerable drop in oversea values for frozen mutton and lamb, has caused shippers to ease off in buying. At the present time only about eight meat freezing works in the southern states are operating, and none are killing up to any-

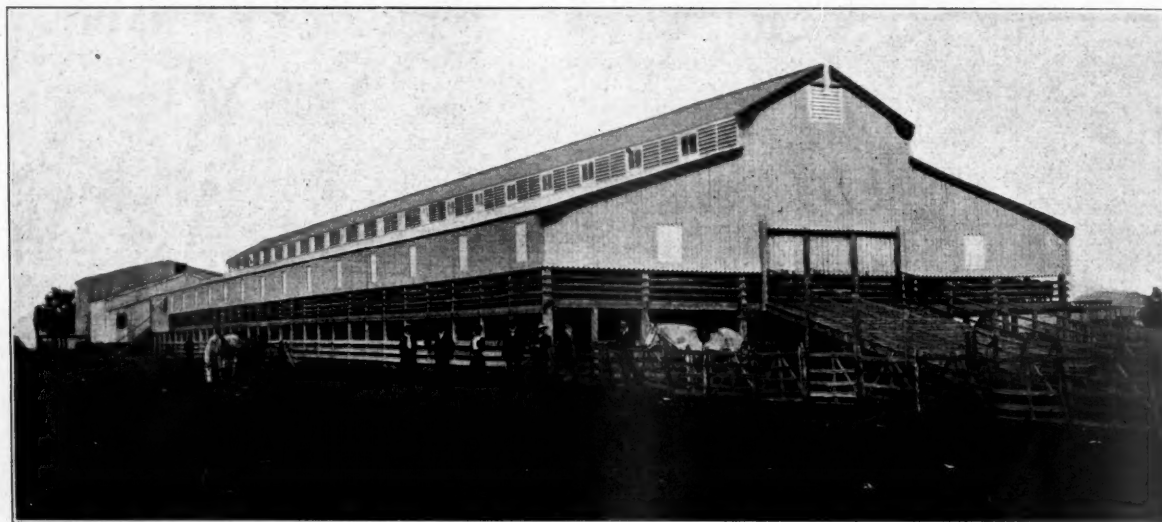
thing like their full capacity. The actual shipments of frozen meat from Australia during February were 407,000 carcasses of mutton and 213,000 carcasses of lamb.

Last week packers were paying nearly 10 cents per pound green for wethers, 7 cents for ewes, and up to 13 cents a pound for lambs. This is a drop in the buying price ruling early in February, but is as nothing compared with the fall in frozen mutton of the British markets. Between February 3rd and March 10th, values for first quality Australian wethers, ex-Smithfield, receded from 15½ cents to 12½ cents, seconds from 15 cents to 12 cents, and ewes from 14 cents to 10¼ cents a pound. The drop in lambs was not so pronounced, although serious enough for those who bought at the high level ruling in December and January. Best Australians dropped from 22 cents to 21½ cents, fair from 18½ cents to 17½ cents, and inferior from 17 cents to 15 cents per pound during the month.

New Zealand is still suffering from the effects of an excessively wet sum-



Stud Merino Ewes in New South Wales.



A Shearing Shed Recently Constructed At a New South Wales Station.

mer. Feed, natural and cultivated, lacks fattening properties and stock are not putting on the condition they should. This is very noticeable in the stuff that is coming into the export freezing works, quality as well as quantity suffering, especially in the North Island. It is now predicted that the shipments of mutton and lamb from the North Island alone will be 800,000 to 1,000,000 carcasses fewer than last year. The deficiency in the South Island, where the season is much later, may not be so pronounced, there being more chance of a dry autumn allowing packers to make up their numbers. Prices on the hoof for fats show little variation from those ruling a month ago. Packers at the beginning of March were paying up to 13 cents per pound green for wethers, to 10 cents for ewes, and in a few cases as high as 20½ cents for lambs. The average price for lambs, though, is a shade over 18 cents a pound. Exports for February totaled 219,000 carcasses mutton, and 609,000 carcasses lamb.

Before leaving the subject of the New Zealand frozen meat trade, I may pass on a few remarks by Mr. J. S. Jessep, vice-chairman of the New Zealand Meat Producers Board, regarding the prospects of exporting New Zealand lambs to the U. S. A. Mr. Jessep recently passed through

America on his way home from Great Britain, and on his arrival told a reporter that "the prospects of doing an extensive trade in the United States at the moment do not appear to be too favorable. At present prices, plus duty, we cannot compete with the American home killed article. We will take New York for instance. In New York and suburbs, there is a total population of about eight millions. They absorb between sixty and seventy thousand lambs per week, practically all home killed. The average value of these home killed lambs in New York is no higher than that which we could land New Zealand lambs after paying duty. However, if the market conditions should at any time allow a margin in favor of the New Zealand article, it is the opinion of many large retailers in New York that a trade in New Zealand lambs could be built up. Our lamb is very favorably spoken of by all the large retailers who handled it in 1922."

The March series of wool sales, both in Australia and New Zealand, opened with an all-round lower range of values compared with February. The drop runs from 5 to 15 per cent, but as the market has not settled down it is difficult to specify which particular grades are down most. Comebacks and fine crossbreds are perhaps firmest. The principal reason

for the weakness is the apparent absence of buying on behalf of the English mills. The European and Japanese demand has been strong, especially the Japanese. While Japan has up to the present been mainly confining her attention to fine wools, signs are not wanting that the scope of her inquiries is widening. There seems to be little doubt that the country will buy more and more of all grades as her factories are brought up to date in the matter of machinery and methods. America has not purchased largely so far during the present series.

Bawra stocks at the end of January stood at 817,000 bales, of which 495,000 were Australian and 322,000 New Zealand. All, with the exception of some 76,000 bales Merino, are classed as crossbred, or slipes and scourd.

Regarding the current season. The total quantity of wool received into store in Australia between July 1st and January 31st was 1,634,524 bales. Of these 1,076,897 were sold by auction and 21,538 shipped unsold, leaving in store on February 1st 536,089 bales. The available figures for New Zealand are not so complete. The total sold in that country during the seven months was 219,139 bales, and shipped overseas, including sold, 252,537 bales. If the present rate of selling is maintained, there should be no trouble in disposing of the whole of

the 1922-23 clip before the end of June.

The Australian Workers' Union, which unsuccessfully attempted to hold the shearing up in Australia last season, has at last had the grace to acknowledge that direct action has failed. At the annual convention of the union a resolution was passed advising members to accept the terms laid down by the Arbitration Court for next shearing. Well and good, but at the same time the general sec-

retary was instructed to apply immediately for a variation of the conditions. For this purpose he is to approach the Graziers' Associations with a view to obtaining a conference so that the matter may be settled out of court. Considering the high-handed action taken by the union in flouting graziers, the court, and everybody else, it is hardly likely the sheep owners will agree to any increase in wages, at all events.

Professor Lawrence describes the plant as follows:

"At this time dense heads of small greenish-yellow or whitish-colored flowers are sent up on a shoot from six to twenty-four inches high. Plants having this description should be examined further to see if they possess grass-like leaves that come from an onionlike bulb beneath the ground. The leaf of the death camas, however, does not have a sheathlike part surrounding a jointed stem as in the grasses. The bulb of death camas is small, resembling an onion or the edible camas; however, it does not have an onion-like odor. If this bulb is dug out of the ground carefully, it will be observed that the outer layers of the bulb are brownish or black in color. Areas infested with death camas may be easily recognized during the flowering season.

"The bulbs of the death camas and the edible camas are easily mistaken, and results disastrous to human life sometimes occur because of the confusion. The flower of the edible camas is rich blue, and much larger than that of the death camas. The leaves are also longer, wider, and a deeper green than the leaves of the poisonous plant."

The most important preventive measure, he asserts, is to keep sheep away from death camas, which can usually be done when herders recognize the plant. Sheep having a good range or well fed before they drive through infested regions may not suffer losses as under those conditions they will not eat enough of the weed. Plenty of salt will also prevent eating the bitter plant as a result of a depraved appetite.

There is no satisfactory medical remedy for poisoning by death camas, asserts Professor Lawrence.

F. L. Ballard.

DEATH CAMAS (Wild Onion)

Many deaths among sheep ascribed to various plants such as the lupine are often due to death camas, one of the less well recognized poisonous plants of the West, according to William E. Lawrence, professor of botany of the Oregon Agricultural college, who has recently made a study of poisonous plants in Oregon. Professor Lawrence states that losses from death camas have been known to run up to twenty-one percent of a band in this state and he further says that practically all losses of sheep due to this plant could be avoided if its poisonous nature was more generally recognized.

"There are about ten common names applied to death camas in different sections of the country," says Professor Lawrence. "The most common are lobelia, poison camas, alkali grass, poison grass and wild onion."

It is also occasionally called "hog potatoes," because hogs root eagerly for the bulb which does not affect them, but which is very poisonous to other live stock. The bulb is also poisonous to man. Horses and cattle may become poisoned by death camas, but seldom so seriously as to cause death.

The United States Department of Agriculture has demonstrated that the flowers, leaves and bulbs are dangerous to sheep when one-half pound per hundredweight has been eaten within a short period. Smaller amounts may prove fatal. All parts of the plant are poisonous, but the seeds more poi-

sonous than any other part. Losses from this plant occur largely in early spring before the range is in good condition and sheep are eating nearly anything that they find.

"There are two species of death camas found commonly in Oregon,"



Death Camas (*Zygadenus Venenosus*)
—Photo from U. S. Department of Agriculture.

says Professor Lawrence. "The foothill death camas is found chiefly in the sagebrush regions. The plant grows wherever moist conditions occur in the early part of the year, both in the mountains and in the lowlands."

Note: Further information and detailed descriptions of the different varieties of Death Camas can be found in Farmers' Bulletin No. 1273, issued by the Department of Agriculture, under the title, "The Stock-poisoning Death Camas."

LETTER FROM A SHEPHERD TO HIS PAL.

Wickalulu, May 10th, 1923.

Dear Ern:

I been in town close to three months now and can almost fasten a stand-up collar around my neck, which I bought me one just to practice with not because I want ever to wear same but only so's to be prepared if I was ever called on. You can't never tell and besides I been watching the guys that circulate in and out down at the First National and borrow money and they most all wear \$40 suits and stand-ups, and I guess, Ern, there must be some personality in clothes allright. I notice they size you up purty darned careful when you borrow money, leastwise considerable more so than when you make a deposit.

I walked down to the bank with the boss the other day to cash a little check and I was surprised, Ern, at the kind of conversation him and the cashier indulges in. There's a lot more about this sheep business than sending a dog around, which it seems lots of people assume is the height of a woolgrower's intellectual accomplishment. Well, I want to tell you right here, Ern, that idee covers only the first principles. Take the boss and that cashier, now, they conversed about real money, I'd say. It looks like the boss owes a big pile—must be around fifty thousand bucks—and they used a expression which I thought it was only applied in connection with beer and a light thirst because it starts with liquid and when you pronounce it you automatically lean over and raise up one foot and twist your mouth like you was going to blow off some fume. But it don't mean nothing at all like that and when they talk about liquidating down at the First National they is in dead earnest and no fooling. Well, Ern, I hate to take up your time this way but I know it don't amount to more'n sixty a month nohow and if you assimilate this with me, why, maybe by and by me'n you can travel on rubber instead of leather. Then there's another word that has a high

frequency at the F. N. and that is the word "finance." It seems to be the preliminary to everything that is, and when the cashier says, allright, we'll finance you, then everything is lovely, but when he chews his pencil and says, we can't why you go home and think up something else.

But that's enough for you to inoculate your intellect with at first or you'll get top heavy and besides I want to tell you about our lawyer's girl.

You know they adjourned that law suit until the Atlantic Highline Loan and Trust could domicile itself in this state—I ain't going to tell you what that means 'cause you'd never grasp it this side of the bughouse, Ern, and you don't know how near I come going there before I knowed what it illustrates—and the case is going to be settled in a couple of weeks. Well, of course, we have to keep in touch with the legal ends and I picked on the steno for my share and what I mean is that I used darned good judgment.

Did I tell you her name? It's melodious and captivating and I'd hate to think of her ever changing same. Winnie Wayne! Can't you beat it? Just you couple that up with blue eyes, blonde hare, white teeth and a figure as you could drape with anything from a Navajo blanket to a creep-de-chene and never for one brief moment loose interest in it. That's her. She's 100 in the shade in any man's country!

Of course, she in't perfect, which I don't suppose no girl ever is. She was into a automobile accident and got her uvula jammed up a little—nothing serious though, and you'd never notice any damage. I wouldn't have knowed it myself only she told me—she's a perfect little lady that way—and offered to show me, too, but we was in the drug store and there was two or three people around so I hastened her to postpone it. Later I took her out in the moonlight but by that time I'd forgot the word and I was skared to fool around with suggestions not knowing for sure what it meant.

Well, sir, Ern, she's got ways as would differentiate her from the run

and mass of the plentiful majority and I'm for her. She's going to show me how to run a typewriter too—you know, I told her as how I'd like to be a lawyer—and there's one sentence she's already learned me. It goes like this: Now is the time for all good men to come to the aid of their lady. So you can see, Ern, that my time ain't all being wasted even if I ain't out with the herd every day.

Which it reminds me, I guess by the time you hear from me again I'll be out in the desert, going around 'em. The boss is going to start lambing right away now and we're short of help. So I'm going to take one herd and a few hoboos and see what percentage I can make. If I beat the boss he's going to buy me a suit of clothes—and that's already measured for me. You see, Ern, I'm going to take the bunch as has all the old ewes—I cop all the twins—do you get the idee? Anyhow, I'm glad to get out of town, sleep under canvas again, have a bell-wether tinkle me awake, and absorb some real java for breakfast.

Got to close now and go buy me a pair of hobnailed shoes.

As ever and write soon,

Your friend and pal,

Richard A. Wormwood.

IDAHOAN PREFERS KNIFE FOR DOCKING

Just a word in regard to the request of Mr. Ernest White for an opinion on use of docking irons. I never did use them but I have lambed beside sheepmen who did. In the spring of 1919 my neighbor docked 1,100 lambs with irons while I docked 2,500 with the knife. He lost some lambs with maggots and had to put his herd in the corral twice and go over the lambs with sheep dip. I never had a case of maggots. We were lambing side by side and I docked at the same time. In 1920 we went through the same experience only it was another man who used the irons and the result was the same.

Malad, Idaho.

Frank Clark.

THE WOOL SACK

WOOL SALES

Elko, Nevada:

Week of April 30th:

46¾ cents for 4,000 fleeces to American Woolen Company.

California:

Week of April 9th:

46 cents for 8½ months' clip in Salano County.

47½ cents for 9 months' clip in Placer County; shrinkage 57 per cent.

50 cents for 40,000 pounds, years' growth, ¾ and ½-blood wool.

Week of April 16th:

51 cents for 1,800 fleeces, Merino wool in Lake County for New Jersey mill.

55 cents for 20,000 pounds, ½ and ¾-blood wool in Glenn County.

Texas:

Week of April 23rd:

50 cents for 15,000 pounds unshorn, fine wool to Draper & Co., of Boston.

55 cents also reported paid by Draper & Co. for some fine central Texas wool.

RATE OF WOOL CONSUMPTION

The report of the Department of Commerce contains the following figures for wool consumed by 610 mills this year and for the same mills in the corresponding part of last year. These reports do not include amounts used by the American Woolen Company and by one or two small concerns which do not submit their figures:

Amounts (equal to all grease wool) used in 1922 and 1923:

	1922	1923
January	52,280,000	63,348,352
February	53,774,000	57,916,339
March	60,368,000	62,859,150

Total for 3

months 166,422,000 184,123,841

The amount of carpet wool used in the three months of this year is 39,049,000 as compared to 31,780,000 in the corresponding part of 1922.

THE BOSTON WOOL REPORT

By Henry A. Kidder.

The Boston market is still very quiet, as far as actual sales of spot domestic wool are concerned, but in other ways is much more active than hitherto. There can be no doubt that the great firmness recently developed in London and the Colonies has materially modified the views of the Boston wool men in regard to the taking over of the new domestic clip. Certainly, there has recently been a distinct broadening of operations at many points, and more of the big wool houses are getting into the game. As one of the leaders cynically said, "We have got to buy wool or go out of business."

As far as prices are concerned, the situation has not recently shown notable change, except in Texas, and possibly to a lesser degree in Montana. Something like a million pounds is reported to have been recently contracted in and around San Angelo and neighboring concentration points in central Texas, the highest point touched being 55 cents, which, by the way, is several cents a pound above the high point previously reported. Draper & Co. are reported to have been the principal operators on the high basis, though other houses are named as having participated to a greater or less degree in what has been done to date.

Among those mentioned as having contracted recently in that state are Hollowell, Jones & Donald, Draper & Co., Adams & Leland, of Boston, and Charles J. Webb of Philadelphia. If, as expected, the current clip of Texas reaches the 20,000,000 mark, it will be seen that what has been done to date is merely to sample the new clip. This is the way the matter stands in actual weight of wool. In a broader way, the significance of these contracts is that they establish a high market that every wool grower in the state will hold up as a minimum, while buyers, consciously or unconsciously, will compare their purchases with the same standard.

These good San Angelo wools at 55 cents for twelve months' growth, are estimated to show a clean landed cost in Boston of \$1.45, and the earlier contracts at 50 cents or a little better, are figured at \$1.35 to \$1.40. Much depends on who makes the estimate. Each buyer feels sure that his estimate of shrinkage is the correct one, while the unsuccessful buyer is very apt to say "sour grapes." Shrinkages are estimated all the way from 61 to 62 per cent to 63 to 64 per cent.

It must not be understood that all the clips are being contracted at top figures. Not long ago the Menard clip was contracted at 38 cents, and contracts have been made all the way between that figure and 55 cents. What has been established is that the market is on the up grade, something which promises well for the supposedly better wools that are to be accumulated and offered later at Kerrville. Just now, the attention of the trade is mainly on Texas, just as a month ago it was centered upon Utah and the Jericho clip. After holding off for a long time buyers got busy and early in April there was considerable activity in Utah.

The first intimation that there was a disposition to meet the views of the growers came when it was announced that Hollowell, Jones & Donald had taken over the Christianburg wools at 50 cents. This stirred the trade mightily, but when soon after it was announced that the same firm had bought the bulk of the Jericho wools at 51 cents, the excitement was at fever heat. First reports East were that the American Woolen Co. and Hollowell, Jones & Donald had divided the Jericho wools, but later it was stated that the bulk of them went to the latter. It was also reported here that the American Woolen Co. paid as high as 51½ cents for some individual clips in that section.

Though the trade was stirred by the reports of these doings, the other Summer Street houses have been slow to

respond to the urge for higher prices. It was understood that the Utah operations had pretty firmly fixed the standard of prices of good fine and fine medium Territory wools at 50 cents or better. Yet here as in Texas, only the choicest clips are bringing top figures. According to one of the leaders in the trade, one that has been in close touch with all that has been done to date, going prices in various states are: In Texas, 50 to 55 cents for twelve-months' and 46 to 48 cents for eight-months'; in Oregon, 38 to 40 cents for medium clips and 40 to 45 cents for fine; somewhat better than this in Idaho, 46 cents having been paid for one clip; in Utah, 46 to 48 cents earlier and 48 to 51 cents later; in Wyoming, 43 to 45 cents; and in Nevada, 42 to 45 cents.

The market in Montana is very slow to get under way. Growers are disposed to refuse to contract, though operations in that direction are slowly increasing. It is understood here that the National Wool Warehouse & Storage Co. will get considerable wool on consignment out of Montana, owing to the favorable showing made on some of the clips last year. Contracting in that state began in a small way at 45 cents, but only scattering clips were secured even at the advanced bid of 48 cents. Last reports were as high as 51 cents contracted for a good clip.

Shearing is now reported quite general in Utah, and in other sections also considerable is being done. When the uncontracted clips are actually shorn, it will soon be determined whether the Boston wool trade will take its "courage in its hand," and will buy freely at the figures likely to be demanded by growers. There are indications that it may be easy to precipitate a runaway market, though there is an uneasy feeling on Summer Street in regard to the future.

The experience of 1920 and 1921 is still too fresh in the minds of most members of the wool trade to allow them to become too optimistic all at once. In the "back of the head" of everybody in the trade is the fear of a slump in values such as nearly wrecked

the wool trade three years ago. It is true that President Wood of the American Woolen Co. has recently issued some very optimistic statements regarding the trade in general and the operations of the American Woolen Co. in particular.

The salient points of a statement issued just before he sailed for Europe are that the American Woolen Co.'s plants are sold 100 per cent or better; that heavy scaling of commitments for the heavyweight season was necessary on account of the flood of orders; that labor costs are up $7\frac{1}{2}$ to 15 cents a yard, and that prices of raw wool have been advanced $11\frac{1}{2}$ to 41 per cent above the level at which these wools were figured for the heavyweight season.

Mr. Wood asserted that there is no close parallel between the rampantly speculative prices for goods in 1920 and the present time, though acknowledging that prices for the spring season of 1924 must be materially higher than now. Indeed, serious and substantial advances are already foreshadowed on the duplicate heavyweight business soon to begin.

Mr. Wood also made this very significant and important statement: Comparison of fifty or more standard staple and fancy worsted fabrics made in the American mills shows that the average cost of these fabrics is \$2.16 per year less than in 1920, a decrease of $41\frac{1}{2}$ per cent.

On the other hand, retail clothiers are being urged to buy very closely, on the ground that they are in danger of an inflation and over-buying of goods such as preceded the deflation of 1920. It is a far cry from the sheep ranges of the Intermountain states of the Central West to the little retail establishments all over the populous East, and yet the ultimate destination of the wool grown in the former place is in the garments that are being sold in the latter.

Considerable optimism attaches to the Government reports on the monthly consumption of wool in this country. On the face of the returns this indicates an enormous consumption of

raw wool. It is comparatively easy to over-estimate the value of these figures as an indication of the consumption of real wool, for they do not separate the use of "virgin wool" from shoddy or reworked wool, noils and wool wastes of all kinds. This must be so, wool men say, as the supply of new wool in this country has never shown such figures in normal years.

Prices of Territory wool in the Boston market are entirely nominal. Only the early Arizona wools have yet been received here in quantity, and it is understood that the bulk of these was sold to arrive or bought upon order. Indeed, there are persistent rumors that an unusual percentage of all purchases this year is subject to similar disposal. This is a matter very hard to verify, but well-informed members of the trade say there is no doubt that some buyers have been willing to turn their early purchases over to the waiting mills at a small profit, or even just for a commission on the buying.

Reports vary as to the quality and condition of the new Territory clip. In the main the reports are favorable, though it is generally believed that this year's clip is deficient in staple, as was so noticeable a year ago. The trend of the demand here is toward the fine side, something that explains the keenness of certain buyers for the best fine wools in Texas and Utah, and even for the heavier wools in Oregon.

Boston is overloaded with medium and low South American crossbreds, for which there is very little demand at present. Some of these wools have already been placed on the bargain counter, and certain lots sold considerably below the market. That the importer still had some profit left in the transaction does not affect the significance of the transaction. Receipts of foreign wool at the port of Boston are falling off as May opens, though the total receipts for the first four months of 1923 were over 180,600,000 pounds, or six times the volume of domestic wool received in the same period, and considerably more than double the receipts of foreign wool for the same period in 1922.

The scarcity of fine wool in the Boston market, and the great firmness noted in Western primary markets, have given unusual importance to the London wool sales. Substantial advances were made at the opening of the April-May series over the previous closing. This firmness has been continued to the date at which this is written, with buyers keen for all grades, both Merinos and crossbreds. The advance in fine wools was expected, but there has been an unexpected strength in medium and low wools.

The season is practically over in Australia. Latest advices from thence say that the Sydney sales have been suspended for want of suitable wools. Indications now are that the remainder of the season's offerings will not be sold until the final clearing sales about the middle of June.

South American markets are also practically over for the season, and shipments from thence are falling off. There is a demand here for good Montevideo and New Zealand crossbreds, and such Australians as are available, sales in bond recently of these grades having been quite liberal, at least when compared with the dullness existing in other grades, and also in spot domestic wools.

Ohio and similar fleeces have shared with Territory wools in the dullness in actual wool on the spot, and also in the nominal position of all quotations. Last sales of Ohio fine unwashed Delaine reported were made early in April at 57 cents, since which time there has been no opportunity to size up the market, through comparison of actual sales. In the country, buying is going on steadily, though not in very large volume, on the basis of 50 to 52 cents for good fine Ohio clips and 46 to 48 cents for medium. In Michigan, most growers are reported to be holding firmly at 50 cents for both fine and medium clips, but something is being done a little under these figures. Understand that an effort is being made to tie up the growers in Ohio and Indiana under a three-year contract to the Columbus pool, with what success will be determined later.

Summing up the situation, it may be said that most of the wool houses are looking askance at the situation, and would gladly hold back on operations. As they see their competitors getting more and more of the good clips, they are one by one being swept into the current. May will develop whether a runaway market is to result, or whether prices have reached the peak, now that some of the "show" clips have been sold.

THE FAIRFIELD, UTAH, WOOL POOL AND SHEARING STATION

The state of Utah comprises a large area of what promises to be a permanent range sheep country. The bands owned by residents of the irrigated strip extending north and south are usually grazed upon the Forest Reserve of eastern Utah in summer and in winter or in the western and the southern portion of the state, some of them entering Nevada.

These annual emigrations have resulted in the establishment of large sectional shearing sheds. These sheds are constructed and operated under co-operative arrangements entered into by the owners of the sheep accessible to the various railroad points where shearing can conveniently be done.

The Jericho shearing shed and wool pool are widely known. A very similar and equally well conducted organization is to be found at Fairfield in Cedar Valley about 100 miles south of Salt Lake.

The Fairfield owners are this year having their shearing done in a shed that is above the ordinary for convenience, usefulness and economy. This shed which has a total length of 285 feet by 45 feet in width was erected to replace one burned of the same size last year. It contains 42 stands for blade shearers and has a total housing capacity of about 2,500 head. The north section of the shed holds about 2,000 ewes and is arranged to permit sending them forward through a se-

ries of pens with the least possible trouble and delay into the passages at either side of the shearing shed proper. From these passages the sheep are fed into the holding pens, which have slatted floors. The shearers work inside this pen and after tying the fleeces pass them over the partition on to a belt conveyor which delivers them at the platform which is on a level with the top of the suspended sacks.

The owners shearing at this shed have this year organized a pool which will result in the offering of about 300,000 pounds of wool as one lot. Separate committees are in charge of the shearing operations and the selling of the wool. Opportunity is afforded for selling separate clips through the sales committee. At the time that the sheep were about half shorn three of the twenty-five owners had disposed of their clips at prices ranging around 50 cents per pound.

COLORADO HAS FABRIC LAW

The "truth in fabric law" has passed the Colorado legislature. The law as originally drawn would require that every dealer, offering for sale fabric purporting to contain wool, attach to the fabric one of three labels: (1) "All Virgin Wool;" (2) "Not Less Than — Per Cent Virgin Wool," and (3) "No Virgin Wool."

The Retail Merchants Bureau of Denver, after having appeared at a hearing on the bill, were confident that the bill would die in committee. However, the bill suddenly appeared on the senate floor with favorable recommendation.

The merchants then were successful in adding to the bill an amendment to read: "Provided that the information necessary to comply with this act shall have been furnished by the manufacturer, wholesaler or other source from which the fabric shall have been purchased."

National Wool Grower, \$1.50 per year.

NEW YORK STATE WOOL POOL REPORT FOR 1922

The New York State Sheep Growers Co-operative Association, Inc., recently rendered the following report to its members:

Quantity and Net Sale Prices

The following shows the amounts of the several grades and net prices for each grade marketed:

	Lbs.	
Fancy Delaine	7,469	(Unsold)
Delaine	33,069	(Unsold)
Fine Clothing	5,098	44 c
1/2-Blood Combing	103,766	49.6c
1/2-Blood Clothing	6,260	40.4c
3/4-Blood Combing	131,581	46.9c
3/4-Blood Clothing	3,911	38.2c
1/4-Blood Combing	199,008	42.3c
1/4-Blood Clothing	3,831	36.9c
1/4-Blood Low & Common	13,772	34.5c
Tags	2,455	15 c
Rejections	19,116	34 c
1/2-Blood Fed Wool	3,585	43 c

532,821

Cost of 1922 Pool

The following is an itemized statement of the charges incurred in handling the 1922 pool. Please note the gradual reduction in cost per pound below the 1920 and 1921 pools. Further reduction will be possible depending largely upon handling an increasing volume of wool.

Item.	Amount
Auditing ..	\$ 424.33
Commissions—Raw Wool	190.14
Directors' Fees	442.90
Discount on Sales—Raw Wool	1,925.23
Documentary Stamps	1.00
Exchange	132.45
Freight on Wool Sent Out	95.46
Insurance on Wool	406.52
Interest ..	319.50
Legal Services	6.58
Office Expenses	89.25
Office Rent	240.00
Office Salaries	3,976.63
Postage ..	257.64
Services—Traffic Department	250.00
Shipping Supplies—Raw Wool	80.43
Stationery and Supplies	446.66
Telephone and Telegraph	57.76
Traveling Expense	195.40
Warehouse Expense	65.44
Warehouse Payroll	3,196.41
Warehouse Rent	3,224.11
Assessment for carrying charges (1/4c per lb.)	2,664.21
Assessment for reserve contingent fund (1/4c per lb.)	1,332.05

Direct charges pro-rated against individuals\$20,020.10
Rate .0375 per pound.

CALIFORNIA STUDENTS STAGE WOOL SALE

Students in the College of Agriculture of the University of California, who are studying wool production under Professor J. F. Wilson, wool specialist, recently organized an imaginary wool warehouse. The course was

designated as "Animal Husbandry 113" in the university curriculum and the students called their new concern "The A-H 113 Wool Warehouse Company."

Rules and regulations regarding the handling and shipping of wool, storage, insurance and selling charges were drawn up along lines designated to give mutual satisfaction to prospective consignors and to the warehouse.

On Saturday, April 14, the management of the warehouse was turned over to Professor Wilson, while members of the class undertook to buy at sealed bid auction, eight lots of wool aggregating 148,000 pounds. Six lots of grease wool and two lots of scoured wool, varying in grade from fine to common, were represented by samples of approximately 25 pounds each. It is perhaps superfluous to remark that there were no withdrawals and that prices on some lots exceeded the fondest expectations of the instructor.

For several days before the sale was held, all of the students taking the course kept in touch with market conditions through the columns of the Daily News Record. On the morning of the sale each student was handed a telegram from his "house" advising him of the latest developments in the trade and stating what wools were most needed by his particular concern.

On account of the limited experience which the class had had in estimating shrinkages, five fleeces of various grades were set aside, the instructor attaching to each fleece a card bearing the estimated shrinkage. These the students used as a guide in determining the yield of the various lots.

The sealed bids submitted contained the students ideas as to grade, description, and shrinkage of each lot as well as the price offered, and the marks of the students were based upon how closely each one followed his telegraphic instructions as to values and demand.

Wool men who read these paragraphs will pardon the error made by nearly every student in the class when the grade of scoured lots was placed too low. The fictitious representative

of E. H. Tryon bid on a lot of "fine combing tags." The American Woolen Company's man found "defective bellies" in a lot of scoured wool and Charles J. Webb's buyer was ignominiously fired from his employ for buying 67,000 pounds of fine staple using the shrinkage as a basis for price calculation instead of the yield.

On the whole the sale was a success, though it is doubtful if prices realized will have any marked effect on the operations of Eastern buyers.

THE WOOL YIELD OF 1922

The following is the United States wool production for last year and since 1919, as estimated by the Department of Agriculture:

(In thousands of pounds; i. e., 000 omitted.)

State	1919	1920	1921	1922
Maine	725	760	600	589
N. Hampshire	180	182	161	128
Vermont	438	430	365	312
Mass.	90	95	102	102
R. I.	15	14	18	19
Connecticut ..	56	63	60	54
New York	3,351	3,291	2,941	2,882
New Jersey ..	58	60	55	55
Penn.	3,444	3,582	3,403	3,437
Delaware	16	17	13	12
Maryland	551	562	440	449
Virginia	1,520	1,596	1,541	1,607
W. Va.	2,600	2,500	2,300	2,346
N. Carolina ..	380	420	395	395
S. Carolina ..	103	101	97	102
Georgia	167	165	160	157
Florida	162	157	150	157
Ohio	15,265	14,500	13,200	13,596
Indiana	4,069	3,654	3,458	3,527
Illinois	4,183	3,974	3,496	3,426
Michigan	7,836	8,385	7,714	7,868
Wisconsin	3,310	3,219	2,701	2,446
Minnesota	3,054	2,660	2,340	2,457
Iowa	5,682	5,966	5,369	5,208
Missouri	7,706	7,552	5,202	5,098
N. Dakota	1,826	1,899	1,633	1,715
So. Dakota	5,222	4,804	4,324	4,021
Nebraska	1,730	1,886	1,641	1,395
Kansas	1,754	2,087	1,878	1,690
Kentucky	3,211	3,000	2,600	2,678
Tennessee	1,483	1,462	1,320	1,294
Alabama	255	292	189	185
Mississippi	500	475	470	446
Louisiana	600	600	508	525
Texas	14,986	18,200	18,000	19,300
Oklahoma	526	477	482	458
Arkansas	375	394	355	344
Montana	18,267	16,000	16,400	15,416
Wyoming	26,000	21,000	23,684	22,500
Colorado	7,332	6,888	6,839	6,976
N. Mexico	11,600	10,600	10,100	9,600
Arizona	5,400	4,800	5,616	6,000
Utah	17,000	16,150	16,500	15,984
Nevada	7,750	7,500	7,000	6,580
Idaho	22,145	18,650	16,800	15,000
Washington ..	5,779	5,201	4,421	4,112
Oregon	16,039	14,435	14,435	12,992
California	15,217	14,300	14,070	13,456
U. S.	249,958	235,005	225,546	219,095
Pulled wool....	48,300	42,900	48,500	42,000

The Course of the Sheep Markets In April

CHICAGO

May found live mutton trade in a decidedly healthy condition. All through April it staggered under an excessive supply. In fact the stuff was taken in surprising manner when the continuous avalanche was considered.

Colorado attacked the job of cleaning up so vigorously that it kept the big feed barns around Chicago and Omaha so full constantly that killers always had plenty of stuff in sight and were in a position to dictate terms. Not until the last week of April did this pressure relax and then lambs promptly advanced 50 cents per hundredweight, top grades crossing the \$15 line. As was the case all winter, the heavy lamb was severely penalized, exporters taking thousands at \$10@10.50 per hundredweight shorn, other thousands selling below \$10. Taking the month as a whole a lot of lambs sold at \$14@14.60, the latter figure being about the limit at the low time. Sheep were scarce and sold relatively high. As the season advanced shorn stock cut a considerable figure, \$11@12 buying the desirable end of the crop. A healthy wool and pelt market was a saving factor, in fact the only incentive for shearing was to get gains. Spring lambs were few, the heavy advertised run of new lambs from California failing to materialize.

The First Week

The first week of April delivered 225,000 at the ten principal markets, heralding the heavy run that followed. The corresponding week of last year developed only 171,000 at the same points. Lambs declined 25@40 cents, the \$15 quotation being erased. Nothing passed \$14.90, and at the close \$14.75 was the limit. Nebraska and Colorado furnished the bulk of supply, desirable wool lambs in the fleece selling mainly at \$14@14.60, with the 95-to-110-pound class at \$12.50@13.50. Most of the shorn lambs realized \$11.25@11.90, with extreme heavies at \$9.50@10, exporters paying the latter figure

for a string of 102-pound stock. A few cars of California springers realized \$15, with throw-outs at \$13 and odd bunches of native "springs" were worth \$20@25. Yearlings, although scarce, declined in sympathy with fat lambs, \$12@13 taking the bulk. Sheep were not affected, selling at strong prices, the best light-wooled ewes reaching \$8 and the bulk of the fat heavy ewes going at \$7.50@8.50 in the wool. Shorn ewes averaging 104 pounds reached \$8.25. For aged wethers in the fleece it was a \$9@10 market, according to weight, fall shorn Texas stock averaging 102 pounds making \$9. Feeders and shearers were practically out of the market, a few loads of lambs going out at \$13.75@14.25.

The Second Week

The second week brought no relief from supply congestion, ten markets handling 224,000, compared with 166,000 a year ago. Desirable light lambs declined 15@25 cents and shorn stock to the same extent, others holding about steady. Mature sheep were so scarce that prices actually advanced slightly.

Colorado and Nebraska again furnished the bulk of supply, and the proportion of shorn stock frequently outnumbered woolskins. The extreme top on fed lambs was \$14.60, the bulk of the wooled goods going between that figure and \$14, with \$13 a common price for weights exceeding 90 pounds. Shorn lambs sold largely at \$10.60@11.50, with extreme weights to packers at \$9.75@10 and to exporters at \$10@10.50. Twelve cars of California spring lambs were appraised at \$14.75, with seconds at \$12.50@12.75. Choice handyweight wooled ewes were hard to find, clipped stock selling at \$7.50@8.25 largely, choice 119-pound averages reaching the latter figure. It was a \$9@9.50 market for most of the desirable aged wethers in the fleece, most of the shorn wethers selling at \$8@8.75.

The Third Week

Another substantial grist reached the ten markets during the third week, the

count showing 235,000, compared with 135,000 a year ago. No serious decline resulted, although weighty wooled lambs were a bad selling proposition. No California spring lambs arrived and natives were scarce. The extreme limit on fed lambs was \$14.60, the bulk of the desirable wooled lambs selling between that figure and \$14, heavies at \$13.50@13.90, and extreme weights at \$12.75@13. It was a \$10.75@11.50 market for most of the shorn lambs, with a \$12.10 top on extreme lightweights, heavy shorn lambs going at \$9.75@10.50. No choice light-wooled ewes were offered, \$9 taking the best, clipped ewes selling largely at \$7.25@8, with a heavier kind at \$6@6.50. A few lots of feeding and shearing lambs went to the country at \$13@14.

The Fourth Week

Supply pressure subsided the last week of the month, when only 212,000 reached the 10 markets, compared with 229,000 a year ago, whereupon lambs promptly advanced 50 to 75 cents per hundredweight, choice handyweights showing most of the improvement. Best old crop wooled lambs reacted to \$15, the bulk selling at \$14.25@15, some Navajos lacking finish going at \$13.25@14. The shorn delegation sold mainly at \$11@12, with a sprinkling above the latter figure, exporters paying \$10.15@10.50 for the heavy end. No California lambs arrived, natives going at \$15@17.50. Navajo yearlings, in the wool, sold at \$12.50@13, and shorn yearlings at \$9@10. For wooled ewes it was a \$6.50@10 market, according to weight, shorn ewes making \$7@8. Not enough shorn wethers arrived to make a set of quotations.

The Last Week

The last two days of the month developed a brisk market, a long string of \$15@15.25 lamb sales being made. Even the heavy lamb was equal to a better performance, big weights making \$13.50. Shorn lambs sold at \$11.75@12.75, and at these prices killers acted as though they had a place to put the stuff. Some 105-pound shorn lambs

reached \$10.50, and choice 96-pound shorn yearling wethers cashed at \$10.65, and two-year-olds weighing 113 pounds at \$9.75. J. E. Poole.

OMAHA

The heavy run of the earlier months of the year continued through April, the total for the month of over 205,000 exceeding any previous April run with the exception of April, 1921, when receipts totaled 209,162. February of this year established a record for receipts for that month, while January and March were the same as April, in that runs for those months were exceeded but once by corresponding months of previous years. The total for the first four months of 957,743 represents record receipts for this period and shows an increase of 271,501 over the first four months of last year. This is an increase of over 39 per cent.

Although woolled lambs predominated in the supply early in the month, this situation was reversed during the last week, with fed clipped lambs making up the big end of each day's run. California spring lambs arrived on a number of days, as well as small lots of native springers. Receipts of aged sheep were comparatively light all through the month.

Fat lambs carried a strong tone throughout the entire month and, although there were a number of days when prices ruled weak to lower, the trend of values was strong to a little higher, with closing prices 25¢@50 cents higher on woolled lambs than at the close of March. Clipped lambs showed considerably more strength with an advance of \$1@1.50 for the month.

Woolled lambs made a top price for the month of \$14.65 during the last week, with movement of desirable weight lambs largely in the narrow range of \$14.50@14.65. Clipped lambs, which early in the month moved at \$10.50@11, sold readily during the last week at \$11.50@12.25, with handy-weights quotable at \$12.50. California spring lambs were moved largely at \$14@15, but reached \$15.25 on the last day of the month. Although occasion-

al loads sold practically straight, the bulk of sales was with a sort of 10 to 40 to the car, with the sorts selling at \$12.50@13. Native spring lambs sold fully on a par with the Californias.

Offerings of feeders and shearing lambs were light and what was offered suitable to go back to the feed lots, usually met with a good demand. Almost the entire supply was taken by the local feeders within a drive-in radius of the market. The total outgo was 6,730, as compared with 6,738 for April last year, and 10,352 for March this year. The bulk of the movement was at \$13.75@14, but with a number of lots during the closing days above the \$14 mark, and with a high mark of \$14.65 on the last day of the month. These prices are fully \$1 higher than at the close of last month.

Receipts of aged sheep were light and with good demand prices gradually worked higher. Almost the entire offering in this division consisted of ewes, there being only occasional lots of yearlings and wethers offered. Prices on ewes advanced 25¢@50 cents with clipped stock in some cases showing more advance. Woolled ewes were moved largely at \$8.75@9.25, the latter the top price for both month and season and the highest since April of last year. Clipped ewes sold at \$7.50@8. Yearlings sold up to \$13 and wethers \$9.75.

All classes closed the month firm at the full advance, with a strong undertone to the trade during the closing days, even although receipts continued liberal.

L. O. G.

KANSAS CITY

In a general way April sheep prices kept within the March spread. The high and low spots of the two months were practically the same. However, the March range was established on general movement in prices, while the bounds of the April range were made on the great difference in class, quality and condition of the offerings, in connection with a demand, fairly large in volume, but most uncertain as to class and quality. Buyers at uncer-

tain intervals in the month would develop great eagerness for strong and mediumweight lambs, and then for a short period they would take only lightweight grades. At times they were indifferent to all offerings except heavy lambs in fleece. The best general description of the month's market is that each day was more or less independent of the other days, and to tell the story in detail would be to follow the price movements on offerings from the same feed lot. In doing this there were fluctuations of 50 cents to \$1.00 on lambs, while fed sheep made only about 25 to 40-cent swings.

It was evident throughout the thirty-day period that killers were operating on a hand to mouth basis, and at no time were they able to anticipate the whims of dressed lamb or mutton demand. Had it not been for a broad demand for wool, pelts and slats, prices would have fluctuated within a \$3.00 to \$4.00 range instead of 50 cents to \$1.00. Relatively, both sheep and lambs are materially higher than fat cattle or hogs, but they are low compared with prices feeders paid last fall for thin lambs and the feed on which they were fattened. Some sheep marketed the past thirty days lost feeders money, most broke about even, and a few fell on the right side of the ledger. The top price paid for fed lambs in fleece was \$15, or 85 cents lower than the season's record price. At the low point \$14.25 was the top. Shorn lambs sold at \$9.50 to \$12.50, and on the close \$12 was the top. The low level of the season, \$9.50, was paid for coarse, leggy, Navajo shorn lambs, full fed, but entirely too heavy for the trade. In some cases the heaviest weighed 112 to 115 pounds. Very few fed lambs remain in feed lots, and they will be disposed of in the first week this month, leaving the general market to clipped sheep and lambs from the Southern sections and spring lambs from all localities.

The movement of spring lambs has not developed very large volume and it is still uncertain whether the available supply will come up to expecta-

tions. A few cars of native springs brought \$14.50 to \$15.25, and about 40 double decks of Arizona lambs sold at \$14 to \$14.50, with 15 to 30 per cent sorts at \$11.75 to \$12.50. Quality of the Arizonas thus far shown, is below normal, but reports indicate that later arrivals will be better. The California movement has not attained the proportions expected, and will not reach the volume estimated a month ago. The San Joaquin and Sacramento Valleys have the principal surplus to move to central markets. Thus far this year, no California lambs have arrived in Kansas City.

Sheep prices have shown as much stability as lamb prices have shown irregularity. Fed grades are practically all in and the final offerings are making the high record levels of the season. Woolled yearlings sold up to \$13.25, clipped wethers \$9.10, and clipped ewes \$7.90. Offerings of fed sheep will be replaced by the vanguard of the movement of Texas grass fat sheep. The first straight grass sheep of the season were offered on the last day of April. They were shorn wethers that sold at \$8.50, and shorn ewes that brought \$7.35. Large supplies of grass fat Texas wethers will not be offered before the latter part of May, as shearing in the Del Rio, Sonora and San Angelo districts has not been completed.

Seven cars of Angora goats, shorn, but in good flesh, weighing 80 pounds, that came from Kanab, Utah, brought \$3.80. They sold for stock purposes. A good many Texas goats will be marketed in the next six months.

Total receipts for the month were 127,071, an increase of 1,900 compared with April, 1922, and slightly less than the April average of the past five years. Total receipts for the four months this year are about 3,000 short of the corresponding period last year, and with feed lots cleaned up closely, and comparatively few native sheep available in this immediate trade territory, it looks like a considerable shortage will develop in the next two months. A large number of Missouri and Kansas farmers would like to re-stock

with sheep, but the general scarcity of breeding ewes, together with high prices, may check that movement. Some farmers have indicated that they will buy ewe lambs this fall and hold them for breeding purposes next year. Cornbelt farmers, since the rally in wool prices, see where they lost out in selling off their flocks two years ago, at comparatively low prices.

Chas. M. Pipkin.

ST. JOSEPH

Sheep receipts for April were not so large as for the past three months, though somewhat larger than in April, 1922. For the month 92,310 were received, compared with 63,115 last April, a gain of more than 46 per cent. As for the past several months bulk of the supply came from Colorado, around 62,000 being from that state. At the close of March, \$14.50 was the high point on lambs. During the first ten days the top dropped to \$14, and showed minor fluctuations the balance of the month, though values gradually worked higher. On the last day prices were mostly 35 higher, the top advancing to \$14.75, or 25 higher than the close of last month. Heavy lambs were scarce during the month, and few sales were made under \$14. Native spring lambs were scarce and sold largely \$14.50@15.

Several shipments of California springers were received, which brought \$14@15.25, the latter price being obtained on the last day of the month. Clipped lambs were more numerous than the previous month and the market closed around 50 higher. Bulk of offerings sold \$11@11.25, though closing quotations ranged up to \$12. Aged sheep were comparatively scarce during the month, and the strong demand continued. Compared with the close of March values are around 50 higher. Choice ewes reached \$9.40, wethers were quoted up to \$10.50, and yearlings \$13.50. Clipped ewes sold up to \$8 and clipped yearlings and wethers were scarce. Small lots of feeding

lambs went mostly to local feeders at \$13.25@13.75.

H. H. Madden.

NUMBERS OF SHEEP FOR JANUARY 1, 1921-22-23

The Department of Agriculture has published its estimate of the number of sheep on hand at the beginning of this year. The increase over last year leaves the total number slightly under that reported for 1921.

(January 1—000 omitted.)

	Total	% of 1922	1922	1921
Maine	90	95	95	100
New Hampshire	18	92	20	24
Vermont	43	90	48	58
Massachusetts	16	95	17	17
Rhode Island	3	94	3	3
Connecticut	8	94	9	10
New York	532	104	512	550
New Jersey	10	100	10	10
Pennsylvania	477	102	468	478
Delaware	3	101	3	3
Maryland	93	105	89	93
Virginia	338	105	322	335
West Virginia	504	105	480	485
North Carolina	81	96	84	89
South Carolina	23	100	23	23
Georgia	66	94	70	69
Florida	63	98	64	69
Ohio	2,094	107	1,957	1,977
Indiana	648	107	606	606
Illinois	516	100	516	561
Michigan	1,171	105	1,115	1,161
Wisconsin	341	93	367	432
Minnesota	400	90	445	468
Iowa	829	107	775	1,005
Missouri	1,105	106	1,042	1,158
North Dakota	240	96	250	272
South Dakota	703	102	689	675
Nebraska	733	123	596	521
Kansas	314	110	285	321
Kentucky	675	107	631	651
Tennessee	340	100	340	349
Alabama	90	108	83	79
Mississippi	142	100	142	148
Louisiana	122	98	124	124
Texas	2,862	93	3,077	3,047
Oklahoma	87	96	91	91
Arkansas	81	90	90	96
Montana	2,315	102	2,270	1,973
Wyoming	2,396	99	2,420	2,350
Colorado	2,444	119	2,054	2,306
New Mexico	2,062	88	2,343	2,468
Arizona	1,155	105	1,100	1,200
Utah	2,340	104	2,250	2,200
Nevada	1,119	94	1,190	1,100
Idaho	2,642	106	2,492	2,623
Washington	520	104	500	555
Oregon	1,953	105	1,869	2,025
California	2,402	104	2,310	2,500
United States	37,209	102.4	36,327	37,452

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Fat and Feeder Lambs in the Coming Summer and Fall Trade

By J. E. POOLE

Speculation as to the probable course of the spring and summer lamb market is in order. Opinion differs radically. Its consensus is conservatively optimistic. The adverse influence of cheap pork must be taken into reckoning, but spring lamb is always a popular dish, enabling it to make a market for itself and after a whole winter on a pork diet, the consuming public is somewhat sated with that food. Up to May 1st, not enough spring lambs had reported at market centers to justify forecasting. Most of them sold at \$15@17.50, figures that will be discounted as the Tennessee and Kentucky crop moves in increasing volume. An \$8 hog market makes \$15 lambs look high, but meat is not expensive when pelt values are taken into consideration. The public is hungry for spring lamb and may be expected to go to it when the time arrives. The course of the summer market will depend in a large measure on the supply of natives and the manner in which they are marketed.

Colorado feed lots were emptied by the end of April. The March Government estimate on the stuff "back" created a semi-panicky condition, forcing a lot of stuff to market in April that could have been carried until May, as the moment supply pressure relaxed, prices went up. At the inception of May a gap in supply was possible as an advertised early run of Tennessee lambs did not materialize and California discredited the forecasters who had been confident of a deluge from that quarter. Apprehension that the Colorado run would lap over into April also had the effect of discouraging feeders and shearers from operating so that May, instead of being a period of demoralization, is likely to produce a healthy set of markets.

Colorado feeders are still striking balances. That the season has not been wholly satisfactory needs no demonstration. Light lambs fed out at a profit and whatever loss was sustained

may be charged up to the big lamb. Feeders also accuse themselves of laying in thin lambs at excessive cost last fall. They talk of eliminating the jobber and establishing direct connections with breeders. A northern Colorado operator on a large scale said:

"I believe it will be mutually beneficial to feeders and breeders to get together. Perhaps the jobber has performed a useful function in the past and he has undoubtedly been of value to the breeder in establishing and maintaining prices. Recently the jobber has made a \$10 to \$10.50 market for new crop lambs, a price that looks to be loaded with trouble for the feeder. Of course these contracts call for delivery of entire bands with a fat end, but feeders have a well-defined idea that by collective purchasing they may put themselves in a position to get their lambs more advantageously, securing for themselves and breeders the jobbers' profit. When lambs were dirt cheap feeders could operate with a greater degree of safety than at present."

Colorado is also concerned about the growing feed bill. They have roughage in abundance, but hauling corn uphill from Nebraska is expensive. Experiments with growing corn under irrigation have been attended with success and the area in this crop is to be extended. Success will revolutionize feeding, as lambs could be thrown into cornfields to do the harvesting.

Northern Colorado is well above the altitude of successful corn cultivation, but the plant is adaptable and with irrigation could be matured by using an early variety. Assuming that corn can be grown thereabouts, the rising feed bill will be a less serious problem. This spring many lambs were dislodged from northern Colorado feed lots prematurely, owing to the soaring cost of corn.

The why and wherefore of the heavy lamb is still under discussion. Certainly the 90 to 110-pound animal was never

under such opprobrium as at present. Never before have 90 to 95-pound lambs been so severely penalized. But for the fact that exporters came to the rescue when the common price dropped to \$10, a clearance might have been doubtful. Just why the Englishman should esteem this product a delicacy while Americans will not give it serious consideration is a problem, but the fact remains that heavy lamb carcasses have been selling 6 cents per pound under light and handyweights at the Atlantic seaboard and tells the story of aversion eloquently. Now that the recent super abundant supply has disappeared it is probable that heavy lambs will go to a parity with lighter grades as the market has a habit of demanding what is not available. Two years ago the market for heavy cattle was demoralized; at present 1,500-pound bullocks are eligible to a premium because of scarcity.

Probably the best route to market for the heavy Western lamb that does not get fat enough to go direct to the butcher is by way of the cornbelt. These lambs can be cheaply conditioned by running in cornfields and sent to the butcher early in the winter before they acquire the heavy fat that makes them unpalatable. The market will always be able to absorb a limited number, regardless of weight or fat.

Another remedy, from the feeder's standpoint, is purchasing heavy thin lambs at a discount equal to that to which the finished product is subjected. The objection to this is that the discount on heavy fat lambs is determined wholly by the proportion of that kind in the winter supply and should this proportion not prove excessive the discrimination would be either reduced or entirely eliminated.

Feeders east of the Missouri River are also talking of the desirability of a wider spread between fat and feeding lambs. Last fall, it will be remembered, feeder buying amounted to a furore owing to the substantial profits pocketed on the crop of fat lambs made the previous winter, discretion being thrown to the winds, both in the mat-

ter of weight and price, in fact feeders grabbed lambs by the thousands that were fat enough to go to the butcher when they came out of the West. This psychological condition is not likely to be repeated during the coming summer and fall, as one season invariably reverses the procedure of the previous year. Problems frequently disappear while solution is under discussion.

Everything is shaping for a broad summer lamb market, however. If the enormous marketing of April could be absorbed with such facility it is reasonable to assume that the new lamb crop can be taken care of. The only possible demoralizing influence will be the marketing of native lambs in disorderly fashion, according to custom.

Cornbelt bankers are not disposed to finance breeding operations. The much lauded farm flock is not in favor with those who finance the purchase of ewes. Possibly if the velvet is taken out of pork production, sheep and lambs may acquire popularity, but the trend is not yet in that direction.

APRIL WEATHER ON WESTERN RANGES

By J. Cecil Alter

The following summary of weather, livestock and range conditions has been prepared from the various publications and reports of the Weather Bureau.

UTAH—Moderately cold, stormy weather prevailed though the snow disappeared from the winter ranges and sheep have mostly left for spring pastures. Grass is growing very slowly and the feeding season is being prolonged in some sections though stock are doing fairly well. Shearing has progressed rather favorably, though intermittently in some places; no important losses of lambs or shorn sheep have occurred.

NEVADA—Cold, stormy weather in the closing weeks interrupted shearing and was unfavorable for lambing though no losses of note occurred. Range grass made rapid growth, especially early in the month, and pasturage has been ample as a rule. Live

stock are mostly in good condition and are doing well on the foothill ranges.

IDAHO—Precipitation has been sufficient in most sections and temperatures have been high enough, especially in the northern portion, to produce a good growth of grass. Cool weather in the southeastern counties has retarded the growth of grass and pastures are advancing more slowly.

MONTANA—Grass made an early start but was checked subsequently by cold, dry weather and growth has since been retarded in many sections. Live stock have begun to improve with the milder weather and the coming of grass, though a heavy snowstorm caused some losses among calves and lambs later in the month in the southern portion.

WYOMING—The gradually advancing spring conditions have opened the ranges fairly generally, though as a rule the growth of grass has been slow. Most live stock have left the feeding yards, and are in fairly good condition. A heavy snowstorm later in the month brought decided improvement to the moisture situation, but interrupted shearing, which in some places has been postponed until after lambing.

COLORADO—Precipitation has been sufficient generally though the cool weather has retarded the growth of grass, especially in southeastern counties; in fact warmer weather is needed in all sections. Live stock, however, have continued in good condition, though there were a few losses during a recent snowstorm in the northwestern portion.

WESTERN TEXAS—Moisture has been ample in most sections though it has been too cold for the best growth of grass. Live stock and ranges are in good condition generally, however, and lambing losses have been comparatively small.

NEW MEXICO—The range was mostly fair to poor, early in the month, and while later rains brought a greatly improved condition rains are still needed in the central and western portions. Live stock are doing fairly

THE SHEEP EXCHANGE

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well, though some cattle losses have occurred locally.

ARIZONA—A fairly good range has appeared in the major grazing areas and most of the live stock have made a satisfactory gain, being now in fairly good condition. Cold, inclement weather in the last week has retarded the growth of grass.

CALIFORNIA—Copious showers at timely intervals have gradually restored the pastures and ranges to a good or excellent condition, and feed is now abundant. Cattle and sheep are in good or excellent condition. Conditions have been favorable for lambing, now practically completed; shearing is progressing on a large wool crop.

OREGON—Rains have been fairly copious, and while locally pastures were backward for some time, there has of late been a decided improvement and they are now in good or excellent condition. Live stock are now doing particularly well. Shearing has been completed west of the Cascades, and is beginning to the east of the mountains.

WASHINGTON—Frequent showers with much mild weather have been very beneficial to pastures and ranges, and forage is unusually good for this time of year. Live stock are doing very well, though the last week was rather cool.

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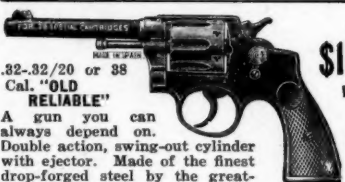
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THE NEED OF THE WOOL INDUSTRY

(Continued from page 26.)

last thirty days and the total landed cost of this fine-medium wool, including the duty, is \$1.25 per pound. Even allowing as much as 3½ pounds of this wool for a summer suit, the total cost of this material, duty and all, would only be \$4.37 for a lightweight suit of clothes and for a heavy suit of clothes it would be \$5.

If this wool duty would increase the cost of a suit \$5, then the raw wool would have cost nothing before this duty was put on because the total cost is now not in excess of \$5.

This man who has been furnishing the retailers with all this propaganda against the wool growers, has failed at any time to ever mention how much protection the present tariff or any other tariff has been giving him. As a clothing manufacturer for eight years prior to the present administration, when wool growers were up against free wool in this country, he was enjoying a protective tariff. At the present time this law, in addition to the compensatory duty on cloth, gives him a protective duty of 50 per cent ad valorem on manufactured goods; on a \$20 suit of clothes, for example, his protection is \$10. His protection is also twice as much as it ever should have been. Fifty per cent ad valorem duty is supposed to be the amount necessary to equal the difference in labor costs in this country but this 50 per cent is placed upon the entire value of the garment, whereas the labor costs in this garment only comprise about 50 per cent of its value and this 50 per cent ad valorem duty should only apply to 50 per cent of the value of the garment, or 25 per cent of the entire value of the garment. Thus it happens in the wool game as it often does in ordinary life, the guilty one is the first one to call attention to the innocent by-stander to detract attention from himself.

I believe you business men of San Francisco should cast your lot with the producers in your midst rather than with the selfish interests of some

clothing manufacturer in New York City who has no thought of any one but himself. This little tariff of 31 cents per pound on wool, as I have shown you by actual figures, amounts to but little on each suit of clothes, yet it does mean the saving of the industry in this country. For three successive years now the wool growers of the United States have lost money. The only reason that many of us are still in the game is because we are still able to borrow. Hundreds and thousands have been forced to quit the past three years.

It is your business as well as ours to help the wool growers secure enough for their wool to insure them some profit at least. Let me urge upon you and say to you that one of the things most needed in our industry is a Non-Partisan Tariff Commission to handle all problems concerning the tariff question. Making this tariff on wool and other farm products the football of politics is one of the main things that keeps our industry in turmoil at all times.

SMALL PACKERS INCREASE THEIR BUSINESS

The large packers are not maintaining their former proportion of the country's meat business. The competition of smaller concerns in the East, shipping live animals from Chicago for slaughter at smaller plants nearer Eastern cities, has been noticeable for several seasons. Reports of the Meat Inspection Division of the Bureau of Animal Industry, which include all animals slaughtered under Federal inspection, show that the smaller concerns now handle over one-half the live stock slaughtered under official inspection.

The exact figures show that while the five largest packers slaughtered 65.1 per cent of the meat animals killed under Government inspection in 1917, in 1921 their total had dropped to 53.4 per cent. On the basis of total slaughter, including that not Federally inspected, the five packers handled only 36 per cent.

WYOMING ASSOCIATION SECRETARY FAVORS POOLING OF WOOL

In a letter recently addressed to the wool growers of Wyoming, Secretary J. B. Wilson said:

"The wool market after a quiet period has regained its usual activity, particularly in those Western states where shearing is done early. One very encouraging feature is the amount of buying done by the mills direct. The fact that these mills are buying direct should be the greatest possible encouragement for growers to pool their wools and sell at one time after shearing, because unless mills have heretofore bought individual clips (and very little of this has been done in Wyoming) it is almost impossible for them to buy wools until after they are shorn. So if you wish to get the added competition of mill buying, it will be necessary in practically all cases to hold your wools until they are shorn, and of course if these wools are pooled it is natural that more wool buyers will be attracted on account of the quantities offered.

"The foreign wool markets have regained most of the loss which occurred during the early March auctions and at the close of the sales nearly all of the grades were again selling at the February levels. From the growers' standpoint the world's wool situation looks particularly strong.

"The figures show conclusively that our consumption of wool is increasing very greatly, even over the figures of last year, which was the high year. A fair estimate of the increased consumption during January and February of this year, as compared with last year, would be at least 18,000,000 pounds for the two months' period. With consumption increasing at this rate and foreign markets remaining steady, there would not appear to be any reason to expect lower wool prices when on the contrary there is every reason to expect slightly higher prices than have been paid thus far in Wyoming."

DEFENSE OF THE HEAVY LAMB

To The National Wool Grower:

Being a reader of your interesting publication and having read Mr. Poole's article in your April issue, I wish to submit my ideas regarding heavy lambs. In a way increased weight in sheep and lambs can be laid to heavy breeds, and undoubtedly progress has been made in that direction by breeders, which is as it should be. Heavier carcasses are also the result of better care and feed on the part of the producer, and improved feeding methods by the feeder (the one who finishes the sheep or lamb for market).

To ask either producer or feeder to

produce lighter weight sheep or lambs would be asking them to do less than their possibilities, and also asking the "feeder" to attempt to market an unfinished animal, which will sell at a discount for that reason. The paramount problem for both producer and feeder is to produce the greatest possible number of pounds of mutton and wool, (don't overlook the wool), for we are not producing sufficient wool and mutton for our home consumption. The evolution from lightweight live sheep and lambs made necessary because of the increased cost of production, was the natural result of improved breeding, care and feed, and our efforts to produce the maximum from our reduced conditions generally.

The suggestion of breeding at different times to produce variation in lambing dates is impractical for the reason that "nature" is the ruling factor. It can be done in a measure to a certain extent in certain localities, but not in a way to cause any perceptible difference as a whole. There is a time of the year (which varies in locations) for "docking" and "castrating;" there is the early grass period; prairie lambs have to come early enough to be safely trailed to the mountains or hills before the extreme hot weather, and have to be retained sufficiently to develop;—these are governing factors that control irrespective of the desires of the sheepmen, packers or retailers.

Reading "Russell's" remarks, it appears he is not taking a broad view of the matter, merely a selfish position from a personal standpoint. He does not want salesmanship in his salesman, merely some one to push a pencil, write orders as dictated.

Any one knows that there is a certain amount of fats in any fat animal that is inedible and that the meat from a fattened animal is more tender, juicy and palatable than from a thin one. The slogan to the producer and feeder should be: produce the maximum, in growth and fat.

Allow me to recite an instance with in my own knowledge. A retail meat dealer in Illinois, who was a live wire

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Model 06P—Same style as above, with plain walnut stock, round barrel; pistol grip, etc.
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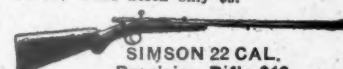
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Long Lugers—9mm. 6-in. barrel. A perfectly rebuilt automatic. Special price.....\$27.50
Luger Magazines—32 shot. Makes a machine gun out of any Luger pistol. A few at \$15
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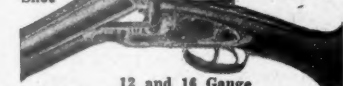


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The Secretary

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and realized the possibility of educational work, advertised one day a week as "mutton stew day," cash and carry. For this he purchased the cheaper and more unsalable portion of the mutton carcasses, which were sold at a price calculated to attract and yet show a small profit. His results were the despair of his competitors. He not only sold the "mutton stews," but he secured an additional patronage through his ambitious methods.

I might go on, but there are so many sides in favor of increased interest in this vital industry that it would be an endless task. I do not believe the public can not be educated to better mutton. I believe that some of the aversion to mutton is on account of retailers selling a "light old ewe" for a lamb, at least I do believe that improved methods should be recognized and encouraged instead of condemned.

Sioux City, Ia. J. W. Higgins.

THE LAKEVIEW (ORE.) COUNTRY

Range lambing operations in south-central Oregon are now on in full swing. Many bands started lambing around April 20th and the balance will follow between April 20th and May 15th. Warm weather with an absence of cold rain or sleet made conditions ideal for those who lambled early in sheds. One Lake County wool grower reports marking a 124 per cent lamb crop recently. Nearly all wool growers in this section who lambled early report an excellent lambing, although storms and cold weather prevailed during the last of the drop.

Warm weather with occasional showers has brought on good grass on most of the lambing ranges and to a very small degree these rains have helped the water shortage on the desert. The light snowfall on the desert and foothills last winter has caused an early water shortage and unless frequent showers during the spring months fill the temporary lakes from which sheep get their only source of water, many bands will be forced to move to higher elevations for wa-

ter, although the feed on the desert is good.

No wool had been sold in Lake County until April 10th, but on that date selling started and within twenty-four hours more than one-half the Lake County annual crop of 1,250,000 pounds had been sold. The first two or three clips brought 42 cents and the balance sold at 43 cents with no discount for buck wool or tags. A dollar per fleece was advanced with no interest. Several clips have since been sold at 44 cents a pound. About one-third the annual Lake County wool crop remains in the hands of the growers who believe the intrinsic value of wool is 45 cents or more. Most local sheepmen are wearing a smile these days as they are beginning to see their way out of heavy indebtedness acquired just before and during the period of depression.

According to the Federal inspector, scab is practically cleared up in the central Oregon counties and only two bands in this entire territory are affected.

Shearing will start about May 10th to 15th. Only two bands have been shorn thus far and this was necessary because of scab and the necessity of dipping. All in all conditions look much better for the central Oregon wool growers this season.

Lakeview, Ore. Wm. L. Teutsch.

PACIFIC CO-OPERATIVE WOOL GROWERS EXPANDS

As a result of the high prices obtained by members during the 1922 season, the Pacific Co-operative Wool Growers have increased their membership considerably this spring. Since the close of the 1922 pool, 300 new members have joined the association. These men represent approximately 75,000 sheep. A number of the large range sheep owners of eastern Oregon who have watched the association's progress closely for the past two years, this year joined the association, and will market their wool graded and in an orderly manner.

A significant feature which has no

doubt interested new members in joining the association is the fact that the prices received for fine and medium wools last year through the association are still several cents higher per pound than the peak outside prices thus far paid in the Northwest during the current season. During 1922, a number of choice range clips in the association brought from 43 to 46 cents per pound, while the valley fine staple wools brought over 49 cents. The association last year sold a carload of wool for the highest price received for wools in the entire Northwest when it received 52 cents a pound for a carload of fine southern Oregon.

The association will appear in behalf of the sheepmen of the Northwest before the Interstate Commerce Commission in the hearing on wool rates which is to be held in Portland on May 7.

OFFICIAL SHEARING TEST FOR ADVANCED REGISTER

Twelve months have elapsed since the first ewes were entered for advanced registry in the California Rambouillet Breeders' Association. The preliminary shearing, in accordance with the regulations governing admittance to advanced registry, was witnessed by a representative of the College of Agriculture, University of California, and at the present time the fleeces which are to be tested are being taken off as the twelve months' time limit expires. A total of 55 head were entered last year by the various members of the association. All of the sheep entered met the requirements as to body weight and Rambouillet type. It now remains to find out whether or not the staple is $2\frac{1}{2}$ inches long without stretching, is free from hair, kemp or off colored fibers and to scour the fleeces. Ewe fleeces must weigh at least 5.25 pounds scoured, and ram fleeces at least 7.7 pounds scoured, calculated on a basis of 16 per cent regain. The wool will be scoured in the wool laboratory at the Branch of College of Agriculture at Davis.

During shearing it was found necessary to eliminate several ewes on account of insufficient length of staple. Preliminary scouring work done at the college indicates that it may be advisable to raise the scoured wool require-

ment since three of five fleeces picked at random from the University flock yielded more than 5.25 pounds. The first ewe, however, to be officially tested failed to be admitted.

J. T. Wilson.

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My 1923 offerings:
400 Registered Yearling Rams (chiefly polled.)
200 Registered Yearling Ewes.
6 Registered Percheron Stallions, 3 years old.
Matched teams of Registered Percheron mares.

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Second prize lamb at International, 1920.

MY OFFERINGS FOR THIS SEASON ARE:

60 head of Yearling Rams
50 head of Yearling Ewes
40 head of 2-year-old Rams

Also breeding ewes from two to nine years.

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Equally Good For All Livestock

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- No. 355. Blackleg Aggrassin.
- No. 1051. Anthrax Prevention.

Animal Industry Department of

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Statement of the Ownership, Management, Circulation, Etc., required by the Act of Congress of August 24, 1912,

Of National Wool Grower, published monthly at Salt Lake City, Utah, for April, 1923. State of Utah, County of Salt Lake, ss.:

Before me, a Notary Public in and for the state and county aforesaid, personally appeared F. R. Marshall, who, having been duly sworn according to law, deposes and says that he is the Editor of the National Wool Grower, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of Publisher: National Wool Growers Association Company, 303 McCormick Bldg., Salt Lake City, Utah.

Editor: F. R. Marshall, 303 McCormick Bldg., Salt Lake City, Utah.

Managing Editor: None.

Business Manager: F. R. Marshall, 303 McCormick Bldg., Salt Lake City, Utah.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

National Wool Growers Association, an unincorporated body, Salt Lake City, Utah, and thirteen state wool growers' associations (unincorporated)

F. J. Hagenbarth,
F. R. Marshall.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state). None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; and that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustee, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

F. R. Marshall,

(Signature of editor, publisher, business manager, or owner.)

Sworn to and subscribed before me this 16th day of April, 1923.

(Seal)

M. B. Stinchcomb.

My commission expires May 6, 1923.

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